

Hydracyl HP 200, 250, 300

145051-00

INSTALLATION MANUAL

The Hydracyl HP is an indirect unvented cylinder designed and approved for use with a heat pump. The heating coil has been specifically designed for this heat source and information is included in this manual to link the cylinder with the heat pump. This cylinder is manufactured and approved in accordance with EN 12897:2006.

This manual gives detailed advice for installation and should be read carefully prior to fitting the unvented unit. Where components are supplied only for indirect units, this is clearly shown.

This Hydracyl HP cylinder must be installed by a competent person and installed in compliance with these Installation and Maintenance Instructions, and all current legislation, codes of practice and regulations governing the installation of unvented hot water cylinders in force at the date of installation.

Components supplied with the unit for site fitting

(See also page 3 for component list)

- * Cold water inlet group (CWI), includes pressure reducing valve, line strainer, balanced cold water take off, check and expansion valve.
- * Tundish
- * 2 sensor pockets
- * Motorised valve
- * Expansion vessel.

Components factory fitted

- * Immersion heater
- * Thermostats / Thermal cut-out
- * Temperature and pressure relief valve.

This product should be installed and maintained by a qualified engineer using the information provided in this literature.

Health and Safety

Manual Handling Operations Regulations 1992 defines manual handling as: “any transporting or supporting of a load (including the lifting, putting down, pushing, pulling, carrying or moving thereof) by hand or bodily force”. The regulations set no specific requirements such as weight limits. However common sense still has to be used based on an ergonomic approach for each individual.

 **WARNING** - Ensure cylinder is completely filled with water before connecting the immersion heater, risk of permanent damage to immersion heater and cylinder.

 Make sure the electric power is turned off before draining, otherwise the heating elements can be damaged and the warranty is void.

For draining instructions, see “Commissioning” on page 5.

 **Important: Before resetting the safety cut-out or altering the thermostat setting, isolate electrical supply to the unit prior to removal of the electrical box cover. Insert top edge of cover first to ensure that it is replaced correctly then secure with retaining screw.**

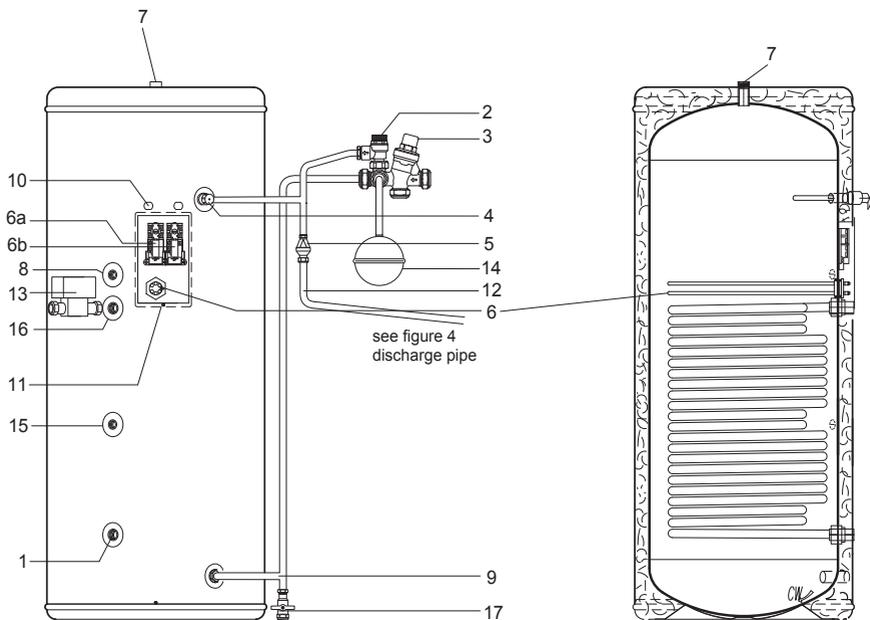
 This cylinder is not intended to be used by persons (including children) with limited physical, sensory or mental capabilities or insufficient experience and/or knowledge, unless they are supervised by a person who is responsible for their safety or have been instructed by this person on how to use the unit.

Children must be supervised to ensure that they do not play with the unit.

General Layout Fig: 1

EXTERNAL VIEW 200/250/300

CUTAWAY VIEW



KEY

Spare part no.

1	Return 3/4" BSPF	
2	Expansion Relief Valve	0020127610
3	Pressure Reducing Valve with Check Valve and Balanced Cold Connection	0020127609
4	Temperature and Pressure Relief Valve	0020196813
5	Tundish	
6	Immersion Heater	0020196809
6A	Thermostat Immersion Heater	0020196811
6B	Thermostat Heat Pump	0020196812

KEY

Spare part no.

7	Hot Water Outlet 3/4" BSPF	
8	Sensor Pocket 1/2"	
9	Cold water inlet	
10	Cable Entry	
11	Electrical Box	
12	Discharge Pipe (Not supplied)	
13	Motorized Valve	
14	Expansion vessel	
15	Sensor Pocket 1/2"	
16	Flow 3/4" BSPF	
17	Drain cock	

DIMENSIONS AND WEIGHTS TABLE 1

PRODUCT REF.	(litres)	200	250	300
HEIGHT	(mm)	1150	1400	1600
DIAMETER	(mm)	580	580	580
WEIGHT EMPTY	(kg)	50	55	61
MAX WEIGHT FULL	(kg)	240	301	341

Installation details

The Hydracyl HP unvented unit is designed for use with a supply pressure up to 10 bar. For pressures over 10 bar an additional pressure reducing valve must be fitted in the supply pipe to the unit.

COLD WATER SUPPLY

1. To obtain the best performance from your Hydracyl HP unvented system it is advisable to feed the unit with an uninterrupted supply.
2. Before connecting to the CWI, flush the cold supply pipework of all flux and debris.
3. Locate the cylinder in a suitable position to facilitate the installation of the cold water supply, discharge fittings and pipework. Also take into account access to the immersion heater and the drain cock.
4. Connect cold water supply using suitable drain cocks.
5. Fit the CWI group ensuring correct direction of water flow.
6. Fit the tundish to the T piece using a short length of copper tube.
7. Fit the expansion unit supplied, ensuring secure installation of expansion vessel.
8. If a balanced mains pressure cold water supply is required, remove the blanking cap from the pressure reducing valve (3) and connect to the cold supply. Do not use the balanced cold connection to feed bath taps as this can reduce the flow available to the unvented cylinder.
9. Connect the cold supply to the CWI (3).

Hot water supply

10. Connect the hot water supply pipework to the outlet (7). Ensure connection is water tight.
Secondary return (optional)
11. Connect secondary return (if required) by fitting a T-piece (not supplied) into the cold feed tube (9) according to diagram on page 12.

Discharge pipe

12. Connect the discharge pipe from the tundish (5). This must have a continuous fall and be fitted in accordance with The Building Regulations (see page 12). The tundish should be installed away from electrical devices.

Primary flow & return & motorised valve - heat pump

13. The heat pump primary flow and return connections should be made to the unit. The motorised valve must be fitted either on the flow or return of the primary water heating circuit. The primary flow and return connections are ¾" female. The valve has 22mm copper connections. The direction of the primary flow in the coil is top to bottom.

COMMISSIONING

⚠ WARNING - Ensure cylinder is completely filled with water before connecting the immersion heater, risk of permanent damage to immersion heater and cylinder.

Filling up

1. Open a hot tap.
2. Open the cold water supply valve
3. When water flows from hot tap, close the tap
4. Allow the system to stabilize for 5 minutes
5. Open each hot water tap in turn to expel air from the system pipe work.
7. Check for leaks.
8. Manually operate Temperature and Pressure Relief Valve (4) to ensure free water flow through discharge pipe. (Turn knob anti-clockwise).

Draining/flushing

1. Turn off mains supply.
2. Connect hose pipe to drain cock at base of cylinder.
- ⚠** Open all hot taps. Open drain valve and open temperature & pressure relief valve.
3. Allow to drain. Follow commissioning instructions (above) to refill.

SAFETY AND MAINTENANCE

Safety Cut-out (if any of the below occur always contact a competent installer)

1. The safety cut-out may operate if:
 - a. Wiring is incorrect.
 - b. The immersion heater thermostat or cylinder thermostat fails.
 - c. Thermostat is set too high.
2. Remember before resetting the safety cut-out or altering the thermostat setting, isolate electrical supply to the unit prior to removal of the electrical box cover.
3. Reduce thermostat setting and press the reset button. After adjustments are completed, ensure the electrical box cover is replaced correctly and the retaining screw is fitted.

Cold or tepid water discharge at the tundish - (The tundish should be installed away from electrical devices.)

1. Close cold water supply valve
2. Open a hot tap.
3. Re-pressurise the expansion vessel air charge to its set level.
4. Close hot tap
5. Open the cold water supply valve

Hot water discharge at the tundish

This indicates a malfunction of a thermal cut-out, operating thermostat or the combined temperature and pressure relief valve. Turn off the electrical supply to the immersion heater and also isolate the boiler. Contact the installer or competent engineer immediately.

TABLE 3

Product code	Max. design pressure	Operating pressure CW feed & coil	Pressure drop primary heater	Temp. / pressure relief valve	Safety valve Pressure / conn.	Exp. vessel capacity
Hydracyl HP 200	8 bar	cw in 3.5 bar, coil 3.5 bar	0,2 bar max.	90-95°C / 10 bar	6 bar / 15mm - 1/2"	18 l.
Hydracyl HP 250	8 bar	cw in 3.5 bar, coil 3.5 bar	0,2 bar max.	90-95°C / 10 bar	6 bar / 15mm - 1/2"	25 l.
Hydracyl HP 300	8 bar	cw in 3.5 bar, coil 3.5 bar	0,2 bar max.	90-95°C / 10 bar	6 bar / 15mm - 1/2"	25 l.

INSTALLATION AND SERVICING INSTRUCTIONS

Positioning the unit

The cylinder should be fitted level on a hard surface with sufficient load strength to take the full weight of the cylinder (see table 1 page 1). Adjustable feet are fitted to ensure the unit can be adjusted to a level position. There are no limitations regarding the fitting distance from walls etc., but it is strongly recommended to ensure easy access to all pipe fittings etc. There should be at least 80 cm of free space in front of the cylinder to ensure easy access for servicing and maintenance.

Protection from frost

If the cylinder is in danger of being exposed to frost while not operating under electric power, the unit must be drained to avoid damage.

 Make sure the electric power is turned off before draining, otherwise the heating elements can be damaged and the warranty is void.

For draining instructions, see “Commissioning” on page 4.

Cold water inlet control (CWI) See Page 2

This unit consists of a pressure reducing valve with integral strainer, check valve and expansion valve with stainless steel seat. The pressure settings are set and locked in the factory and are shown on the top of each valve. For optimum performance the following installation instructions should be complied with.

Installation

1. Cold water supply to be 22mm nominal size.
2. Flush supply pipework before connection to remove all flux and debris prior to fitting the cold water inlet controls. Failure to do this may result in irreparable damage to the controls and will invalidate the warranty.
3. The CWI group can be fitted in any orientation to suit the installation as long as it is fitted in the correct flow direction. Check the flow arrows on the side of the body.
4. The expansion valve should be either horizontal or pointing downwards. If fitted upwards, debris may be deposited on the seat of the valve and cause fouling of the seat when the valve operates. Check direction of flow arrows.
5. Expansion relief drain pipework must be connected to a safe visible discharge point via a tundish and the pipework must have a continuous fall.
6. The pressure reducing valve has two outlets, the second one is for a balanced cold water supply.

Using the balanced cold connection to feed bath taps can reduce the flow available to the unvented cylinder. If not required the balanced cold supply is blanked off.

The Benchmark Log Book located at the back of these instructions, should be completed after commissioning of the system and handed to the customer for future use.

TABLE 4

Product code	Actual capacity (l.)	Weight empty	Weight full	Primary flow rate	Heat-up (mins) coil	Rating (kW) coil	Heat loss kWh/24h	Hot Water Capacity
Hydracyl HP 200	190	50	240	15 l/min. - 80°C	20,8	26,9	1,7	179
Hydracyl HP 250	246	55	301	15 l/min. - 80°C	23	29,7	2,0	209
Hydracyl HP 300	280	61	341	15 l/min. - 80°C	27	27,1	2,2	237

MAINTENANCE

It is required that annually a competent person

- (a) Check water flow rates, inspect and clean the line strainer, as necessary.
- (b) Checks the operation of the expansion relief valve and temperature & pressure relief valve.
- (c) Recommissions the cylinder in accordance with the instructions on page 4.
- (d) Completes service section of the Benchmark cylinder commissioning check list at the back of this manual.

Corrosion resistance

High quality stainless steel is naturally corrosion resistant to mains water supply. No specific maintenance is required to maintain this resistance. Please see guarantee terms on page 14 for permissible water content.

Please note: Glow-worm cylinders are not guaranteed for use with a private water supply.

Checking the temperature and pressure relief valve and expansion relief valve

- Open each valve manually by turning the valve cap and check whether water is able to flow to the drain via the tundish without obstruction. Make sure that both valves sit correctly in their idle position.

Checking the charge pressure of the expansion vessel

- Shut off the water supply pipe and open the nearest hot water draw-off point to discharge the pressure from the secondary water system.
- Use a pressure gauge to check the expansion vessel pressure at the measuring point. If the pressure is below 3.0 bar, increase it using a suitable air pump.
- Fill in the maintenance section of the commissioning report.

Draining the cylinder

- Close the cold water supply pipe.
- Secure a hose to the drain valve.
- Place the free end of the hose in a suitable discharge position. The opening should be around 1 m beneath the cylinder.
- Open all hot water draw-off points to reduce the pressure and vent the water pipes, thus draining them completely.
- Open the cylinder drain valve and leave open until no more water escapes and the cylinder is completely empty.
- Once the water has drained out, close the hot water draw-off point and the drain valve.
- Remove the hose from the drain valve.

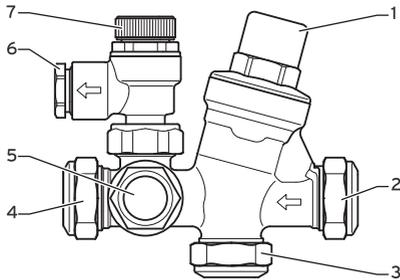
The immersion heater can be removed to provide visual inspection access to the cylinder.

Tundish

Install the Tundish in a vertical position within a maximum of 600mm from the temperature and Pressure Relief Valve drain connection. Ensure the expansion relief pipework discharges through the tundish. Tundish pipework must be 22mm with a minimum vertical length of 300mm below tundish.

Maximum permitted length of 22mm pipework is 9m. Each bend or elbow is equivalent to 0.8m of pipework.

All pipework must have continuous fall and discharge in a safe, visible position. If any doubt, refer to Building Regulation G3, see page 12, fig. 4.



KEY

1. Pressure reducing valve with line strainer
2. Cold water inlet
3. Pressure-controlled cold water inlet
4. Cylinder connection
5. Hot water expansion vessel connection
6. 15 mm expansion relief valve connection
7. Expansion relief valve

Checking the temperature/pressure relief valve and expansion relief valve

Open each valve manually by turning the valve cap and check whether water is able to flow to the drain via the tundish without obstruction. Make sure that both valves sit correctly in their idle position.

ELECTRICAL INSTALLATION

Immersion heater

The Glow-worm Hydracyl HP is provided with a single immersion heater located above the heating coil. The element is designed as an auxiliary heater to supplement the energy from the heat pump if this is insufficient to heat the domestic water to the required level.

Wiring instructions for the immersion heater are located on the reverse side of the lower lid. Follow the wiring instructions connecting the live, neutral and earth as indicated. The electrical connection to the immersion heater must conform to current IEE wiring regulations. The unit must be permanently connected to the electrical supply through a double-pole linked switch with a minimum break capacity of 13 amps. All internal wiring is factory mounted. Each immersion heater has a working thermostat adjustable between 40°C - 70°C. A safety cut-out is also incorporated within the thermostat and will operate at 85°C ± 3°C. Should this happen, investigate and rectify the fault then press the reset button.

⚠ Important: Before resetting the safety cut-out or altering the thermostat setting, isolate electrical supply to the unit prior to removal of the electrical box cover. Insert top edge of cover first to ensure that it is replaced correctly then secure with retaining screw.

⚠ Important: Ensure a minimum cable size of 10.8mm is used to connect mains power supply to cylinder.

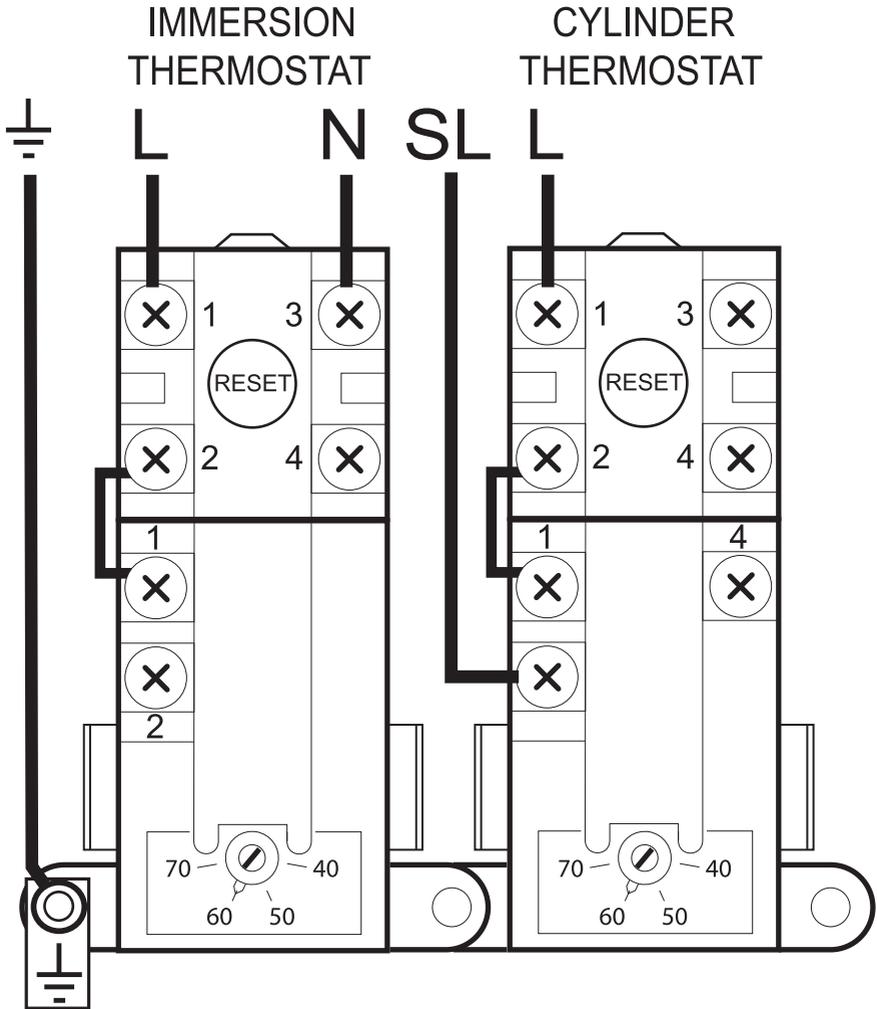
Heating coil

Heat sources to unvented hot water cylinders must be controlled by a thermal cut-out as well as a thermostat. The Hydracyl HP has sensor bosses and pockets to house temperature sensors linked to the heat pump.

The manufacturer cannot be responsible if alternative wiring plans are used.

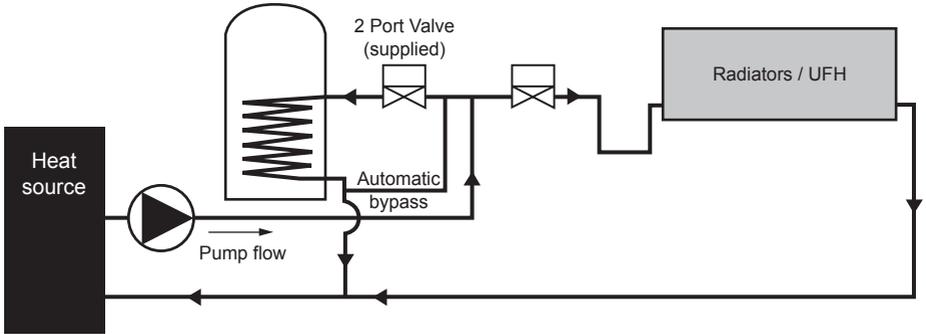
Important: Before resetting the safety cut-out or altering the thermostat setting isolate electrical supply to the unit before removal of the lid.

S Plan Wiring Layout



For detail of wiring the cylinder to external controls, please refer to the instructions of the controls manufacturer.

S Plan System Schematic

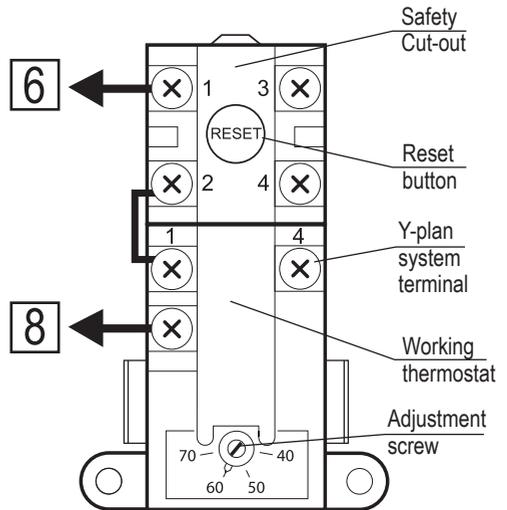


If using a 6-wire 28mm or 1" BSP V4043H on either circuit the white wire is not needed and must be made electrically safe.

⚠ Important: Before resetting the safety cut-out or altering the thermostat setting, isolate electrical supply to the unit prior to removal of the electrical box cover. Insert top edge of cover first to ensure that it is replaced correctly then secure with retaining screw.

⚠ Important: Ensure a minimum cable size of 10.8mm is used to connect mains power supply to cylinder.

FIGURE 2



Cylinder thermostat located in electrical box

Electrical spare parts:

Direct units		Indirect units	
Thermostat	0020196811	Right thermostat	0020196812
		Left thermostat	0020196811
Immersion heater	0020196809	Immersion heater	0020196809

The fault finding section should only be used by a qualified engineer. If a fault occurs with this product, please contact a qualified engineer to remedy the fault.

HYDRACYL HP FAULT FINDING GUIDE

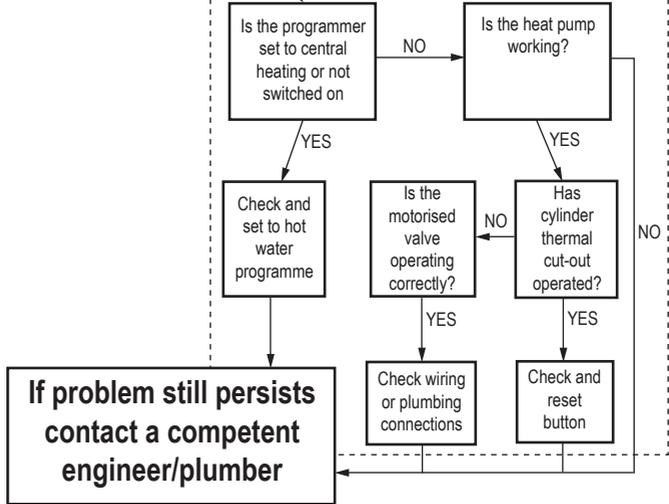
FAULT	POSSIBLE CAUSE	REMEDY
No water flow from hot taps.	<ol style="list-style-type: none"> 1. Mains supply off. 2. Strainer blocked. 3. Cold water inlet Pressure Reducing Valve incorrectly fitted. 	<ol style="list-style-type: none"> 1. Check and open stopcock 2. Turn off water supply. Remove strainer and clean. (See Pressure Reducing Valve page 6 Installation Manual. 3. Check and refit as required, (see item 3 page 5 of installation manual).
Water from hot taps is cold.	<ol style="list-style-type: none"> 1. Heat pump not activated. 2. Immersion heater not switched on. 3. Immersion heater thermal cut-out has operated. 4. Programmer set to central heating or not switched on. 5. Cylinder thermal cut-out has operated. 6. Motorised valve not operating correctly. 	<ol style="list-style-type: none"> 1. Check Heat Pump operation. If fault suspected consult installer or heat pump manufacturer. 2. Check and switch on. 3. Check and reset button (see thermostat diagram page 9 and safety cut-out on page 4 of installation manual). 4. Check and set to hot water. 5. As at No. 2. 6. Check wiring and/or plumbing connections to motorised valve. (See page 8 of the installation manual).
Intermittent water discharge.	<ol style="list-style-type: none"> 1. Reduced expansion vessel charge. 2. Thermal control failure. (Note Water will be hot). 	<ol style="list-style-type: none"> 1. Repressurize expansion vessel. Follow recommissioning instructions on page 4. 2. Switch off power to immersion heater(s) and boiler supply to the unit. When discharge has stopped, check thermal controls, replace if faulty. Contact a competent person.
Continuous water discharge.	<ol style="list-style-type: none"> 1. Cold water inlet pressure. Reducing valve not working. 2. Temperature and pressure relief valve faulty. 3. Expansion relief valve not working correctly. 	<ol style="list-style-type: none"> 1. Check pressure from valve if greater than 2.1 bar replace. (See page 6 of installation manual). 2. As No. 2 of above. 3. Check and replace if faulty. (See page 6 of installation manual).

NOTE: Disconnect electrical supply before removing any electrical equipment covers

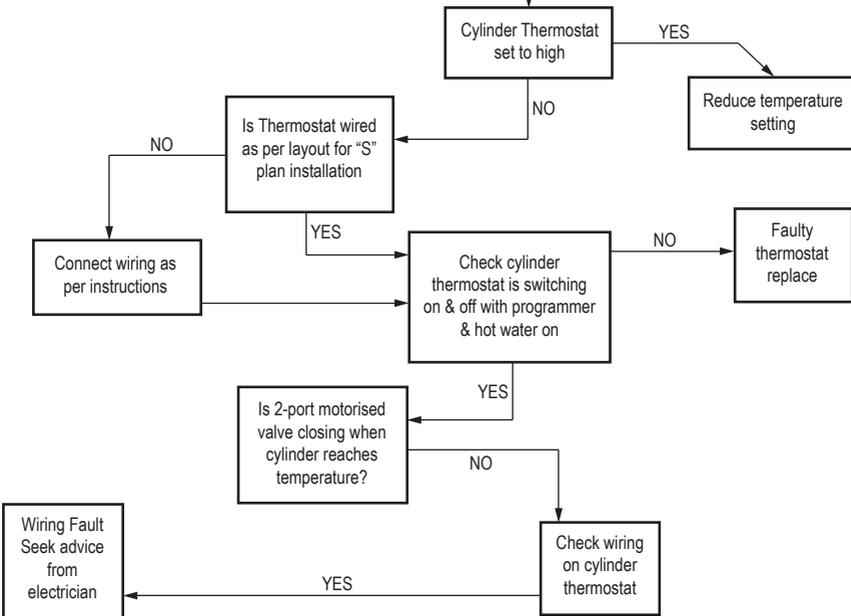
FAULT FINDING GUIDE

Hot water from taps is cold

INDIRECT



Excessive Hot water from taps



If in doubt at any stage you must consult a qualified electrician

DISCHARGE PIPE DETAIL

Downward discharges at low level, i.e. up to 100mm above external surfaces such as car parks, hard standings, grassed areas etc, are acceptable providing that where children may play or otherwise come into contact with discharges, a wire cage or similar guard is positioned to prevent contact, whilst maintaining visibility.

Discharge at high level, i.e. into a metal hopper and metal down pipe with the end of the discharge pipe clearly visible (tundish visible or not) or onto a roof capable of withstanding high temperature discharges of water and 3m from any plastics guttering system that would collect such discharges (tundish visible).

Where a single pipe serves a number of discharges, such as in blocks of flats, the number served should be limited to not more than 6 systems so that any installation discharging can be traced reasonably easily. The single common discharge pipe should be at least one pipe size larger than the largest individual discharge pipe to be connected. For further information contact your Building Control Office or The British Board of Agrément.

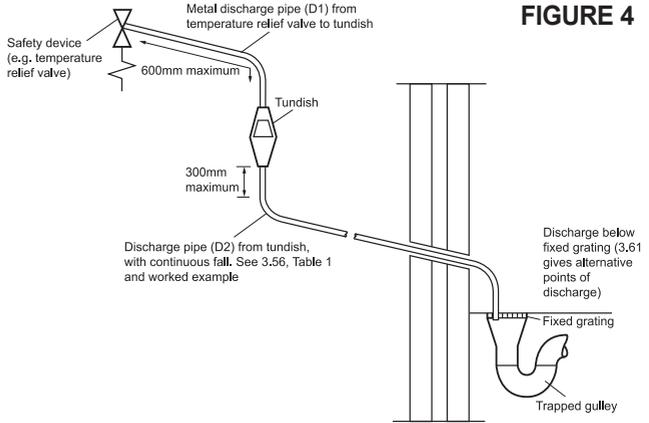
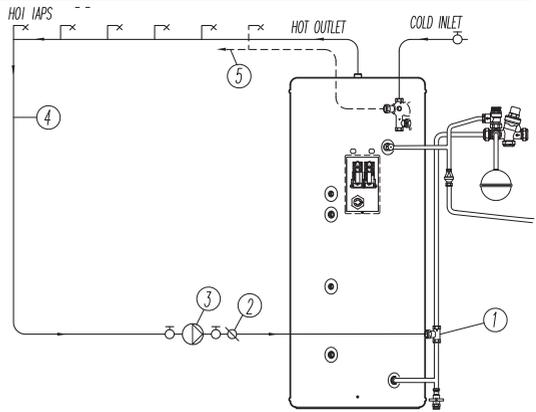


FIGURE 4

SECONDARY RETURN

FIGURE 5

1. Secondary Return Fitting (T piece not supplied)
2. Non Return Valve
3. Circulation Pump
4. Secondary Return Line
5. Balanced cold supply



Hydracyl HP

All replacement parts must be supplied by Glow-worm
To obtain the address of a local stockist contact:

Glow-worm
Nottingham Road, Belper, Derbyshire DE56 1JT
Telephone: 01773 828 100 • www.glow-worm.co.uk

IT IS THE RESPONSIBILITY OF THE INSTALLER TO COMPLETE THIS LOGBOOK AND PASS IT ON TO THE CUSTOMER. FAILURE TO DO SO MAY INVALIDATE THE CYLINDER GUARANTEE



The code of practice for the installation, commissioning & servicing of mains pressure hot water storage

Installation, Commissioning and Service Record Log Book

CUSTOMER DETAILS

NAME _____

ADDRESS _____

TEL No. _____

IMPORTANT

1. Please, keep the Log Book in a safe place for future reference.
2. This Log Book is to be completed in full by the competent person(s) who commissioned the equipment and then handed to the customer. When this is done, the Log Book is a commissioning certificate that can be accepted as evidence of compliance with the appropriate Building Regulations.
3. Failure to install and commission this appliance to the manufacturer's instructions may invalidate the guarantee.

The above does not affect your statutory rights.

Benchmark is supported by



INSTALLER & COMMISSIONING ENGINEER DETAILS

INSTALLER DETAILS

COMPANY NAME

DATE

ADDRESS

INSTALLER NAME

TEL No.

REGISTRATION DETAILS

REGISTERED OPERATIVE ID CARD No.
(IF APPLICABLE)

COMMISSIONING ENGINEER (IF DIFFERENT)

NAME

DATE

ADDRESS

TEL No.

REGISTRATION DETAILS

REGISTERED OPERATIVE ID CARD No.
(IF APPLICABLE)

GUARANTEE - HYDRACYL HP UNVENTED HOT WATER CYLINDER

The Hydracyl HP stainless steel inner vessel is guaranteed against material defect or manufacturing faults for a period of 25 years from the date of purchase. All other parts including, but not limited to factory fitted electrical elements (damage caused by lime scale excluded), expansion vessel, thermostats and valves are guaranteed against material defects or manufacturing faults for 2 years from the date of purchase. In the event of a replacement component being required Glow-worm will supply such part(s) free of charge and freight paid, on condition that the defective component is delivered, freight paid to Glow-worm within 2 weeks of written notice being given to Glow-worm of the defect. Such replacement parts shall be guaranteed under the terms of this guarantee to the unexpired period of the aforementioned 2 year period.

This warranty is conditional upon the Hydracyl HP cylinder being installed in compliance with the Installation & Maintenance Instructions, all current legislation, codes of practice and regulations governing the installation of unvented hot water cylinders in force at the date of installation and provided that:

1. The water quality shall be in accordance with European Council Directive 98/83 EC, or revised version at the date of installation, and is not fed with water from a private supply.
Particular: Chloride content: Max. 250 mg/l
Sulphate content: Max. 250 mg/l
Combination Chloride/sulphate: Max. 300 mg/l (in total)
2. The Hydracyl HP cylinder is filled with water before turning the electricity supply on to the heater elements.
3. The benchmark certificate is completed at the time of installation.
4. The Hydracyl HP cylinder is serviced and maintained every 12 months and is marked as such in the benchmark logbook provided with the cylinder. Invoices for the maintenance work should be kept as proof of regular maintenance. Care should be taken of the logbook and invoices as they serve as the guarantee certificate for the cylinder.
5. If the newly fitted cylinder is not in regular use then it must be flushed through with fresh water for at least 15 minutes.
Open at least one hot water tap once per week, during a period of at least 4 weeks.
6. The Hydracyl HP unvented cylinder has not been modified in any way other than by Glow-worm and is only used for the storage of potable water.
7. No factory fitted parts have been removed for unauthorised repair or replacement.
8. Defects caused by frost, excess pressure, salt dehardner process, transient voltage, lightning strikes or incorrect installation, repair or use, are not covered by this warranty. A laboratory evaluation of possible defects can be ordered by the user, however the user must pay for this where the above mentioned conditions have not been fulfilled. Evidence of the purchase date and the date of supply must also be submitted with your claim.
9. To validate the warranty the user must complete and return the warranty card supplied accompanied by proof of purchase within 60 days of purchase. Evidence of the purchase date and the date of supply / installation must be submitted.
This guarantee does not confer any rights other than those expressly set out above and does not cover any claims for consequential loss or damage. This guarantee is offered as an extra benefit and does not affect your statutory rights as a consumer.

IT IS THE RESPONSIBILITY OF THE INSTALLER TO COMPLETE THIS LOGBOOK AND PASS IT ON TO THE CUSTOMER. FAILURE TO DO SO MAY INVALIDATE THE CYLINDER GUARANTEE

APPLIANCE & TIME CONTROL DETAILS

MANUFACTURER GLOW-WORM	MODEL
CAPACITY litres	SERIAL No.
TYPE UNVENTED	
TIME CONTROL PROGRAMMER <input type="checkbox"/> or TIME SWITCH <input type="checkbox"/>	

COMMISSIONING PROCEDURE INFORMATION

BOILER PRIMARY SETTINGS (INDIRECT HEATING ONLY) ALL BOILERS

IS THE PRIMARY A SEALED OR OPEN VENTED SYSTEM? SEALED OPEN

WHAT IS THE BOILER FLOW TEMPERATURE? °C

ALL MAINS PRESSURISED SYSTEMS

WHAT IS INCOMING STATIC COLD WATER PRESSURE AT THE INLET TO THE PRESSURE REDUCING VALVE? bar

HAS STRAINER (IF FITTED) BEEN CLEANED OF INSTALLATION DEBRIS? YES NO

HAS A WATER SCALE REDUCER BEEN FITTED? YES NO

WHAT TYPE OF SCALE REDUCER HAS BEEN FITTED?

UNVENTED SYSTEMS

ARE COMBINED TEMPERATURE AND PRESSURE RELIEF VALVE AND EXPANSION VALVE FITTED AND DISCHARGE TESTED? YES NO

IS PRIMARY ENERGY SOURCE CUT OUT FITTED (NORMALLY 2 PORT VALVE)? YES NO

WHAT IS THE PRESSURE REDUCING VALVE SETTING (IF FITTED)? bar

WHERE IS OPERATING PRESSURE REDUCING VALVE SITUATED? YES NO

HAS THE EXPANSION VESSEL OR INTERNAL AIR SPACE BEEN CHECKED? YES NO

WHAT IS THE HOT WATER TEMPERATURE AT THE NEAREST OUTLET? °C

ALL PRODUCTS

DOES THE HOT WATER SYSTEM COMPLY WITH THE APPROPRIATE BUILDING REGULATIONS? YES

HAS THE SYSTEM BEEN INSTALLED AND COMMISSIONED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS? YES

HAVE YOU DEMONSTRATED THE OPERATION OF THE SYSTEM CONTROLS TO THE CUSTOMER? YES

HAVE YOU LEFT ALL THE MANUFACTURER'S LITERATURE WITH THE CUSTOMER? YES

COMPETENT PERSON'S SIGNATURE _____ CUSTOMER'S SIGNATURE _____

(To confirm demonstrations of equipment and receipt of appliance instructions)

PLEASE FOLLOW THE INSTALLATION AND COMMISSIONING INSTRUCTIONS IN THE INSTALLATION MANUAL SUPPLIED WITH THE EQUIPMENT

SERVICE INTERVAL RECORD

It is recommended that your hot water system is serviced regularly and that your service engineer completes the appropriate Service Interval Record below.

SERVICE PROVIDER

Before completing the appropriate Service Interval Record below, please ensure you have carried out the service as described in the manufacturer's instructions and in compliance with all relevant codes of practice.

SERVICE 1	DATE:
ENGINEER NAME	_____
COMPANY NAME	_____
TEL No.	_____
COMMENTS	_____
SIGNATURE	_____

SERVICE 2	DATE:
ENGINEER NAME	_____
COMPANY NAME	_____
TEL No.	_____
COMMENTS	_____
SIGNATURE	_____

SERVICE 3	DATE:
ENGINEER NAME	_____
COMPANY NAME	_____
TEL No.	_____
COMMENTS	_____
SIGNATURE	_____

SERVICE 4	DATE:
ENGINEER NAME	_____
COMPANY NAME	_____
TEL No.	_____
COMMENTS	_____
SIGNATURE	_____

SERVICE 5	DATE:
ENGINEER NAME	_____
COMPANY NAME	_____
TEL No.	_____
COMMENTS	_____
SIGNATURE	_____

SERVICE 6	DATE:
ENGINEER NAME	_____
COMPANY NAME	_____
TEL No.	_____
COMMENTS	_____
SIGNATURE	_____

SERVICE 7	DATE:
ENGINEER NAME	_____
COMPANY NAME	_____
TEL No.	_____
COMMENTS	_____
SIGNATURE	_____

SERVICE 8	DATE:
ENGINEER NAME	_____
COMPANY NAME	_____
TEL No.	_____
COMMENTS	_____
SIGNATURE	_____

SERVICE 9	DATE:
ENGINEER NAME	_____
COMPANY NAME	_____
TEL No.	_____
COMMENTS	_____
SIGNATURE	_____

SERVICE 10	DATE:
ENGINEER NAME	_____
COMPANY NAME	_____
TEL No.	_____
COMMENTS	_____
SIGNATURE	_____

When all the above services have been completed, please contact your Service Engineer for an additional service interval record sheet.

