

# INSTINCT®

ENGINEERED BY JOULE

## Direct

### DIRECT UNVENTED STORAGE CYLINDER WITH *EXTERNAL* EXPANSION VESSEL

INSTALLATION MANUAL ISSUE 1 -2020

FOR MORE INFORMATION GO TO:  
[WWW.JOULEUK.CO.UK](http://WWW.JOULEUK.CO.UK)



#### IMPORTANT

By installing this product you agree to be bound by the terms and conditions supplied within this manual, or available for download via our website.

## INTRODUCTION

This corrosion resistant Unvented cylinder is made from Duplex Stainless Steel. It is highly insulated with environmentally friendly foam enclosed in a rust resistant white steel case. It is a Direct Electric Water Heater as defined under the current ErP Directive and available in seven sizes from 90 - 300 litres.

To help ensure compliance with the relevant Water and Building Regulations all cylinder units are supplied complete with the necessary safety and control devices needed to connect to the cold water mains. In order to ensure high flow performance with minimum pressure drop even in lower pressure areas, pre-set high quality controls have been selected. This cylinder is approved to demonstrate compliance with Water Regulations and Building Regulations G3 & Part L.

## STORAGE PRIOR TO INSTALLATION

This cylinder should be stored upright in a dry area and kept in its original packaging until immediately prior to installation.

## INSTALLATION PREREQUISITES

This cylinder should only be installed by a competent installer holding their G3 unvented qualification or be a member of a competent persons scheme. The installation of this product is also notifiable under the Building Regulations. It is a legal requirement to inform Local Building Control of the intention to install an unvented cylinder.

**ONCE COMPLETED THIS INSTRUCTION MANUAL IN ITS ENTIRETY SHOULD BE LEFT WITH THE HOME OWNER.**

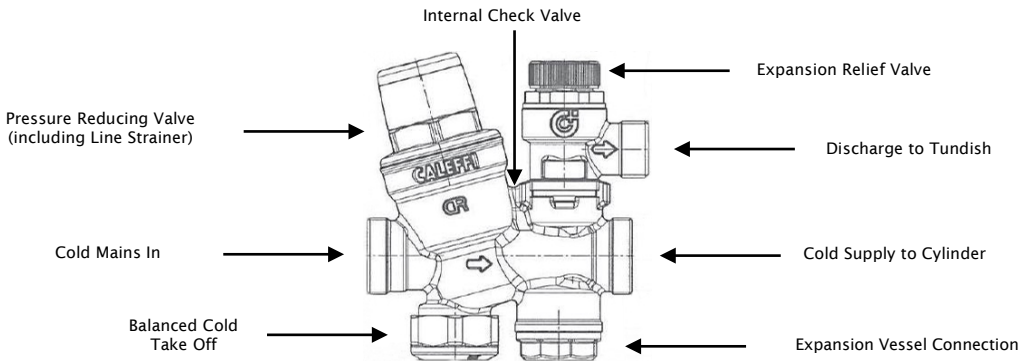
## BENCHMARK

Benchmark places responsibilities on both manufacturers and installers. The purpose is to ensure that customers are provided with the correct equipment for their needs, that it is installed, commissioned and serviced in accordance with the manufacturer's instructions by competent persons and that it meets the requirements of the appropriate Building Regulations. The Benchmark Checklist can be used to demonstrate compliance with Building Regulations and should be provided to the customer for future reference.

Installers are required to carry out installation, commissioning and servicing work in accordance with the Benchmark Code of Practice which is available from the Heating and Hotwater Industry Council who manage and promote the scheme.

Visit [www.centralheating.co.uk](http://www.centralheating.co.uk)

## COLD INLET SET - THE CONNECTIONS



## COMPONENT LISTING

Cold Water Inlet Set	LOOSE
15 x 22mm Tundish	LOOSE
Temperature & Pressure Relief Valve	FITTED
Expansion Vessel	LOOSE
Expansion Vessel Bracket	LOOSE
Compression Nut Connection For Expansion Vessel	LOOSE
Immersion Heater(s) - Dependant on size & configuration	FITTED
Installation Manual	LOOSE
Benchmark Log Book - Found at the rear of this manual	LOOSE

## WATER SUPPLY

This cylinder is capable of delivering over 50 litres per minute when connected to a suitable mains supply. The high quality inlet control set with its 3 bar operating pressure has been designed to make the most of the pressure and flow available however the performance of any unvented system is only as good as the water supply.

In unvented systems both hot and cold services are supplied simultaneously from the mains so the maximum possible on-site water demand must be assessed and the water supply should be tested to ensure it can meet these requirements.

If necessary consult the local water supplier regarding the likely pressure and flow rate availability. It is important that site pressure readings are taken under dynamic flow conditions, high pressures under zero flow conditions are not necessarily indicative of satisfactory performance. A minimum of 1.5 bar at 20 l/m flow should be available. Where mains inlet pressures are likely to exceed 10 bar then an additional upstream pressure reducing device should be fitted.

A minimum of 22mm supply pipe-work should ideally be provided and existing 1/2" (15mm) cold mains pipe-work may need to be upgraded. Hard water treatment should be considered in areas where the CaCO<sub>3</sub> content is greater than 200ppm.

## CHANGE OF WATER SUPPLY

The changing or alternating from one water supply to another can have a detrimental effect on the operation and/or life expectation of the water heater storage cylinder, pressure temperature relief valve and heating unit. Where there is a changeover from one water supply to another, e.g.. a rainwater tank supply, bore water supply, desalinated water supply, public reticulated water supply or water brought in from another supply, then water chemistry information should be sought from the supplier or it should be tested to ensure the water supply meets the requirements given in these guidelines for the manufacturer's warranty to apply.

## WATER CHEMISTRY

This water heater must be installed in accordance with this advice to be covered by the warranty. This water heater is manufactured to suit the water conditions of most public reticulated water supplies. However, there are some known water chemistries which can have detrimental effects on the water heater and its operation and/or life expectancy. If you are unsure of your water chemistry, you may be able to obtain information from your local water supply authority.

## WATER CHEMISTRY LEVELS AFFECTING WARRANTY

The warranty of this water heater will not cover resultant faults on components including the storage cylinder where water stored in the storage cylinder exceeds at any time any of the following levels: -

WATER COMPONENTS	MAXIMUM PERMITTED LEVELS
TOTAL DISSOLVED SOLIDS	600mg/Litre
TOTAL HARDNESS	200mg/Litre
CHLORIDE	300mg/Litre
MAGNESIUM	10mg/Litre
CALCIUM	20mg/Litre
SODIUM	150mg/Litre
IRON	1 mg/Litre
MAXIMUM pH	9.5
MINIMUM pH	6.5

## TOTAL DISSOLVED SOLIDS (TDS)

Some water analysis reports may state the conductivity of the water rather than the level of total dissolved solids. Conductivity, measured in micro siemens per centimetre ( $\mu\text{S}/\text{cm}$ ), is directly proportional to the TDS content of the water. TDS, in mg/L, is approximately 70% of the conductivity in  $\mu\text{S}/\text{cm}$ . The warranty will not cover resultant faults to the storage cylinder if this water heater is connected at any time to a water supply where the TDS content of the water exceeds 600 mg/L. In locations where TDS approaches 600 mg/L, e.g. due to sediment, we strongly recommend fitting an appropriate filter to ensure water entering or in the water heater does not exceed this level at any time i.e. due to sediment build up.

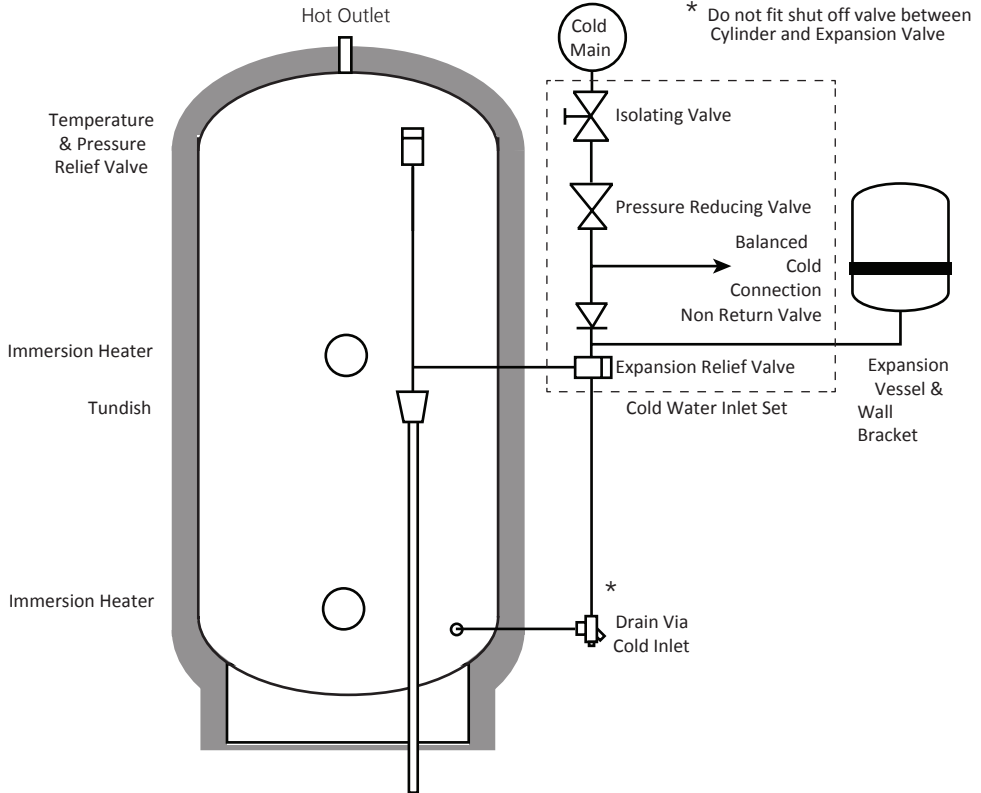
## SITING THE UNIT

This cylinder can be positioned virtually anywhere in the dwelling but it should be remembered that for every 1 metre that an outlet is above the cylinder, the pressure will be reduced by 0.1 bar. If siting outside the heated envelope of the dwelling such as in a garage or attic then frost protection should be provided and exposed pipework should be insulated.

This cylinder must be supported on a flat base capable of supporting the weight of the cylinder when full. The minimum recommended cupboard size is 650mm square.

It's important that consideration is given to access for maintenance of the valves. The immersion heaters are 400 mm long and access space should be provided for possible future replacement, also adequate access to remove and re-install the cylinder in the event of a problem.

## SCHEMATIC



## COLD MAINS PIPEWORK & EXPANSION VESSEL

Run the cold main through the building to the place where the cylinder is to be installed. Take care not to run the cold pipe near hot water or heating pipe work so that the heat pick up is minimised. Identify the cold water supply pipe and fit an isolating valve (not supplied). A 22mm BS1010 stopcock can typically be used but a 22mm quarter turn full bore valve would be better as it does not restrict the flow as much. Do not use “screwdriver slot” or similar valves.

Make the connection to the cold feed of the cylinder and incorporate a drain valve. Position the inlet control just ABOVE the Temperature & Pressure Relief Valve (TPRV) mounted on the side of the cylinder. This ensures that the cylinder does not have to be drained down in order to service the inlet control set. Ensure that the arrow points in the direction of the water flow. Select a suitable position for the expansion vessel. Mount it to the wall using the bracket provided. Use the compression connection supplied to connect the vessel into the cold water pipe adjacent to the cold feed point on the cylinder. There must be no obstruction or flow restriction between the cylinder and the expansion vessel.

## BALANCED COLD CONNECTION

If there are to be showers, bidets or monobloc taps in the installation then a balanced cold supply is necessary. There is a 22mm balanced connection on the inlet control set. All outlets in the house will be controlled to a maximum of 3.0 bar.

## HOT WATER PIPEWORK

Run the first part of the hot water distribution pipework in 22mm. This can be reduced to 15mm and 10mm as appropriate for the type of tap etc. Your aim should be to reduce the volume of the hot draw off pipework to a practical minimum so that the time taken for the hot water is as quick as possible.

Do not use monobloc mixer tap or showers if the balanced cold connection is not provided, the unit will back pressurise and result in discharge. Ensure that the top of the vessel is accessible for servicing.

## SECONDARY CIRCULATION

Secondary return systems are not recommended with electrically heated cylinder, and we suggest consideration should be given to a trace heated circuit. Where secondary circulation is unavoidable a circulator suitable for potable water must be used in conjunction with a non return valve to prevent backflow. The return connection should be made with a swept tee into the cold feed pipework directly above the drain connection. It may be necessary to incorporate an extra expansion vessel into the circuit to accommodate the increased system water volume in larger secondary circulation systems.

## IMMERSION HEATERS

This cylinder is now classified under the ErP Directive as an Electric Water Heater which must have a minimum energy rating of Band C - see data label. To achieve this, the immersion heater installed is fitted with a self-thinking Smart Thermostat as defined by the ErP Directive. Where the cylinder has multiple heaters only the lower heater will be smart formatted. The Smart immersion heater is clearly defined by a grey composite head cap affixed by the three screws. Upper immersion heaters continue to have white composite caps affixed with a center threaded pole and a traditional mechanical thermostat. Instructions for the installation, operation and usage of the two thermostats differ and are detailed below. All standard supply is with immersion heater elements of 3 Kilowatt output at 240 Volts, Incoloy elements, double pole thermal isolation and 1¼” BSP threaded head.

## ELECTRICAL CONNECTION- 3kW - Figure 1

The electrical installation should only be effected by a suitably qualified electrician in accordance with latest I.E.E. regulations. Ensure the electrical supply is isolated before working on the system.

The electrical supply to each immersion heater must be fused at 13A via a double pole isolating switch with a separation of at least 3mm to both poles to BS 3456.

The cable must be 2.5mm<sup>2</sup> heat resistant (85°C HOFr) sheathed flex complying to BS 6141:1981 Table 8. Do not use a cable of lesser rating.

For immersion heaters other than 3Kw consult wiring requirements supplied with the immersion heater.

Do not operate the immersion heater(s) until the unit is full of water. If any sterilisation liquid is in the cylinder do not operate the immersion heater(s) as this will cause premature failure. Electric to be supplied by a fused supply compliant with local regulations, and fitted by a qualified Part P Electrician.

This device must be earthed.

Earth connection, (green & yellow), should be made firmly to the earth post marked “E”, using the terminal attachments provided. Live connection, (brown), from the mains supply cable to the thermostat terminal marked “L”.

Neutral connection, (blue), from the mains supply cable to the thermostat terminal marked “N”.

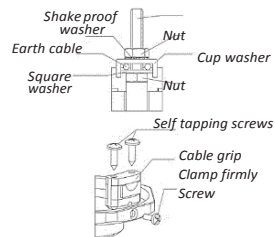
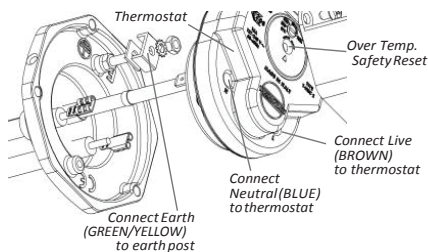


Figure 1

## WIRING - 3kW

As per instruction above, our 3kW immersion heaters **MUST** be wired in 2.5mm heat resistant cable, failure to do so can cause nuisance tripping and we will be unable to support your installation until this has been corrected. For alternative rated immersion heaters consult the instructions supplied with the element.

## COMMERCIAL / HEAVY DUTY / CONSTANT USE

For commercial / heavy duty installations where constant usage / reheat is required or where an external programmer designed for immersion heaters is not present then Titanium immersion heaters must be fitted in order to comply with the warranty.

## RECOMMENDED TEMPERATURE SETTINGS

For domestic usage a temperature set of 55°C -60°C is the norm. This is above the growth temperature area for Legionella and low enough to prevent nuisance high limit tripping of the thermostat and unnecessary scaling.

## SMART THERMOSTAT OPERATION

The Smart thermostat is a Thermowatt T-Mec2 thermostat and its function is controlled by a single control knob, slotted to accept a screwdriver.

**ECO setting - (Figure 2) Economy Smart mode-**This is the factory setting in which the thermostat is supplied. This setting provides the maximum energy efficiency and uses self-thinking smart technology to learn the user's habits to control water temperature to suit established demand. During the first weeks operation the thermostat will operate at 70°C whilst recording hot water usage, and in each subsequent week adjusts automatically to the most efficient use of electricity. Care must be taken when using hot water during the first week of operation as delivered water will be hotter than usual. Should the power supply be interrupted the thermostat will lose all recorded data and revert back to learning mode, i.e. 70°C for one week. The antibacterial mode will function.

In applications of erratic or sporadic usage the Smart thinking thermostat may not be able to establish regular usage patterns effectively. In such an instance use OPK setting.

**OPK setting - (Figure 3) Basic Electronic Thermostat mode or Off Peak mode-**This setting will control temperature to 60°C without Smart control, and is unaffected by any interruption in manual switching or by timer such as off peak tariffs, (Economy 7/10), type installations. Some Smart meters may require this setting. Antibacterial mode will still function.

**OFF setting - (Figure 4) In this mode the thermostat will not operate, only the double pole safety cut-out will function. Antibacterial mode will not function.**

**\*setting - (Figure 5) Antifreeze mode-**This setting will maintain a water temperature of 20°C to prevent the cylinder from freezing. This setting may be preferred for holiday periods. Antibacterial mode will function. Setting the thermostat to MAX (Figure 6) will control the water temperature to a maximum of 70°C. The water temperature may be adjusted to a lower setting by adjusting the control knob anticlockwise to a point where the lowest setting is 10°C. Antibacterial mode will still function.

## MECHANICAL THERMOSTAT OPERATION - UPPER HEATER

The mechanical thermostat has an adjustable control operating between 20°C and 65°C. Usual desired domestic setting is between 55°C and 60°C. The thermostat is supplied set at 60°C. To set turn to maximum, (fully clockwise), and back off, (anticlockwise), approx a quarter of its travel then effecting minor adjustment to suit personal taste.

## THERMAL CUT-OUT, BOTH SMART AND MECHANICAL THERMOSTATS

Should the water cylinder attempt to overheat, (80°C), the thermal cut-out will activate. This will isolate both the live and neutral connections within the immersion heater. This also may trip during a power spike. To re-set isolate the power supply and allow the cylinder to cool down. Remove head cap and press high limit cut-out re-set button on top of thermostat. Should there be continued tripping of this safety device consult a qualified electrician to investigate power supply and/or replace thermostat.

## REPLACEMENT IMMERSION HEATERS - ALL TYPES

Replacement immersion heaters, in all formats, for your water heater are available, and should be obtained via the cylinder manufacturer to ensure the correct specification is supplied, and warranty is not compromised. Standard heaters have incoloy elements, a 1¼" BSP threaded head and standard rating of 3Kw at 240 Volts. Check the label detail on the head before ordering as alternative specifications are available.

The 'O' ring on the head of the immersion heater should be correctly positioned and lubricated with a WRAS approved silicon lubricant before fitting. Screw in hand-tight until almost sealed then gently tighten as the 'O' rings will seal easily. Remake wiring connection as per instructions provided.



Figure 2



Figure 3



Figure 4

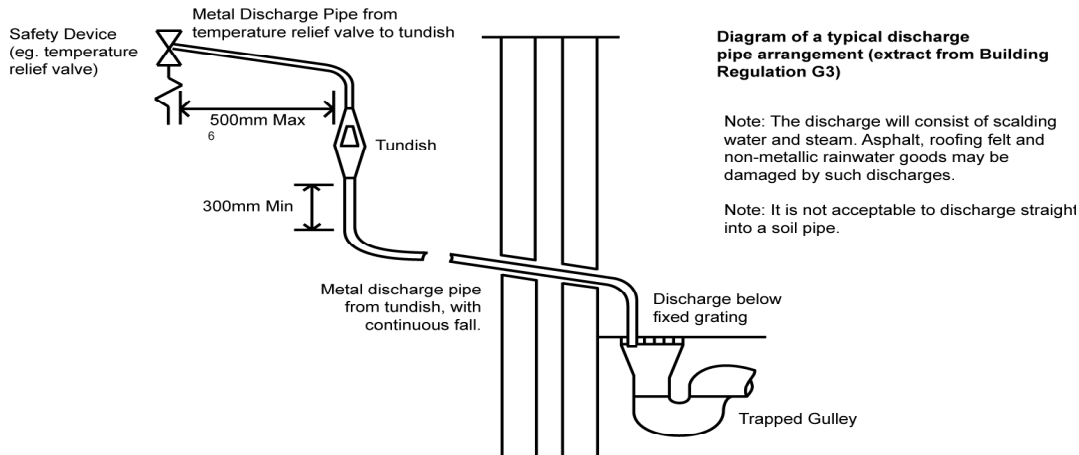


Figure 5



Figure 6

## DISCHARGE ARRANGEMENT



Full detail of Building Regulation G3 is available as a free download from: [www.planningportal.gov.uk](http://www.planningportal.gov.uk). The discharge from both the temperature relief and expansion relief valves can be joined together via a 15mm end feed tee.

It is important that any discharge water does not collect in this pipe-work and can run freely to the tundish.

The tundish should be mounted in a vertical and visible position located in the same space as the unvented hot water storage system and be fitted as close as possible and within 600mm of the safety device e.g. the temperature relief valve. The discharge pipe-work from the tundish must be routed in accordance with Part G3 of the Building Regulations.

The discharge pipe from the tundish should terminate in a safe place where there is no risk to persons in the vicinity of the discharge, be of metal and:

- Be at least one pipe size larger than the nominal outlet size of the safety device unless its total equivalent hydraulic resistance exceeds that of a straight pipe 9m long i.e. discharge pipes between 9m and 18m equivalent resistance length should be at least two sizes larger than the nominal outlet size of the safety device, between 18m and 27m at least 3 sizes larger, and so on. Bends must be taken into account in calculating the flow resistance. An alternative approach for sizing discharge pipes would be to follow BS6700 Specification for design installation, testing and maintenance of services supplying water for domestic use within buildings and their curtilages.
- Have a vertical section of pipe at least 300mm long, below the tundish before any elbows or bends in the pipework and be installed with a continuous fall of at least 1 in 200 thereafter.
- Be installed with a continuous fall.
- Any discharge should be visible at the tundish. See regulations for instruction relating to dwellings occupied by persons with impaired vision or mobility.

From the tundish, pipework should terminate in a safe place where there is no danger to persons in the vicinity of the discharge. Examples of acceptable discharge arrangements include:

1. To a trapped gully with outlet below a fixed grating and above water seal.
2. Downward discharges to low level, within 100mm, above external surfaces such as car park, hard standing, grassed area with protective wire cage to prevent contact but retaining visibility of discharge.
3. Discharge at high level into metal hopper and metal downpipe with the termination point clearly visible or onto roof capable of withstanding high temperature discharge and at least 3m away from plastic guttering system.

Building Regulation G3 allows for the usage of non-metallic pipework within the tundish discharge (D2): The discharge pipe (D2) should be made of a) metal or b) other material that has demonstrated to be capable of safely withstanding high temperatures of water discharged and is clearly and permanently marked to identify the product and the performance standard. The discharge should not be connected to a soil discharge stack unless it can be demonstrated of safely withstanding the high temperature of water discharge, in which case it should;

1. Contain a mechanical seal, not a water trap, which allows water into the branch pipe but not foul air from the drain to be ventilated through the tundish.
2. Be a separate branch pipe with no sanitary appliances connected to it.
3. Plastic pipes used as branch pipes with the discharge should be Polybutylene (PB) or cross linked polythene (PE-X) complying national standards such as Class S of B7291-2:2006 or Class S of BS7291-3:2006 respectively.
4. Be continuously marked with a warning that no sanitary appliances should be connected to the
5. Plastic pipes should be joined and assembled with fittings appropriate to the circumstances in which they are used as set out in BS EN 1043-1:2002.

## **IMPORTANT**

**THE FOREGOING IS AN APPRAISAL OF BUILDING REGULATION DETAIL AND IT IS ESSENTIAL THE INSTALLER GAINS KNOWLEDGE OF THE FULL REQUIREMENTS PRIOR TO PRODUCT INSTALLATION. FOR QUERIES WITH REGARD TO DISCHARGE ARRANGEMENTS CONTACT YOUR LOCAL BUILDING CONTROL OFFICE.**

## **COMMISSIONING - FILLING THE SYSTEM**

Check all connections for water tightness including any factory made connections such as the temperature and pressure relief valve as these may have loosened during transit. The pressure in the expansion vessel should be checked to ensure it is 3 bar (45PSI). The valve is of the car tyre (Schrader) type. The hot tap furthest away from the cylinder should be opened before filling the system to let air out. The system should be flushed before use. The remaining taps should be opened in turn to expel air. The Benchmark Commissioning Checklist shall be completed upon commissioning by the installer.

## **DIRECT UNITS**

The system must be fully filled and flushed before switching on the power to the immersion heaters and allowing the unit to heat up. The immersion heater is supplied preset at 60°C. Turning fully to + sets to approx 65°C.

## **STORAGE TEMPERATURE**

A storage temperature of 55-60°C is normal for both direct and indirect cylinder. In hard water areas consideration should be given to reducing this to 55-60°C. In many healthcare applications the guidance on Legionella control and safe water delivery temperatures will require storing the water at 55-60°C, distributing at lower temperatures and using thermostatic mixing valves to control the final temperature. For details consult the NHS estates guidance on safe hot water temperatures.

## **SAFETY VALVE CHECKS**

Any water coming from either the expansion relief valve or the temperature / pressure relief valve during heat up is indicative of a problem which needs to be identified and rectified. The temperature relief and expansion relief valves should be fully opened, one at a time then both together allowing as much water as possible to flow through the tundish. Check that your discharge pipework is free from debris and is carrying the water away without spillage over the tundish and release the valves and check that they re-seat properly.

## **DRAINING**

Isolate from the electrical supply to prevent the immersion heaters burning out. Isolate the unit from the cold mains. Attach a hose to the draining tap ensuring it reaches to a level below the unit (This will ensure an efficient syphon is set up and the maximum amount of water is drained from the unit). Open the hot tap closest to the unit and open the draining tap.

## **WARNING!**

**WATER DRAINED OFF MAY BE VERY HOT!**

## **ANNUAL SERVICING**

A competent installer should carry out the following checks on an annual basis, ideally at the same time as the annual boiler service.

1. The expansion relief valve on the inlet control set should be eased open allowing water to flow for 5 seconds. The valve should then be closed making sure it resets correctly. Repeat this procedure with the pressure / temperature relief valve. Always insure that the discharge pipework is allowing the water to drain away adequately. If not check for blockages etc. and clear.
2. Ensure that any immersion heaters that are fitted are working correctly and that they are controlling the water at a temperature of between 55°C and 65°C.
3. Make sure the pressure in the expansion vessel is charged to 3 bar. Turn off the water supply to the unit and open a hot tap first. The valve on the expansion vessel is a Schrader (standard car tyre) type. Air or CO<sup>2</sup> can be used to repressurise the expansion vessel.
4. Remove the head on the inlet control set by unscrewing, and clean the mesh filter within.
5. The benchmark service record supplied within this manual shall be updated at each service by the installer.

## **SERVICING**

**SERVICING MUST BE CARRIED OUT ANNUALLY & SHOULD ONLY BE CARRIED OUT BY COMPETENT INSTALLERS AND ANY SPARE PARTS USED MUST BE PURCHASED FROM US. NEVER BYPASS ANY SAFETY DEVICES OR OPERATE THE UNIT WITHOUT THEM FULLY OPERATIONAL.**

**YOUR GUARANTEE MAY BE VOID WITHOUT PROOF OF ANNUAL SERVICING. THE COMMISSIONING CERTIFICATE SUPPLIED AT THE REAR OF THIS MANUAL SHOULD ALSO BE COMPLETED BY THE INSTALLER.**



## **GUARANTEE**

This cylinders stainless steel vessel carries a 25 year guarantee against faulty materials or manufacture provided that:

- It has been correctly installed as per this document and all the relevant standards, regulations and codes of practice in force at the time, and the Benchmark Commissioning Checklist has been completed.
- It has not been modified in any way, other than by the manufacturer.
- It has not been misused, tampered with or subjected to neglect.
- It has only been used for the storage of potable water.
- It has not been subjected to frost damage.
- The unit has been serviced annually.
- The benchmark service record has been filled in after each annual service by the installer.
- The guarantee period starts from the date of purchase and no registration is required.
- The extended guarantee is not transferable, and rests with the original householder.
- The system is fed from a public mains water supply.
- Store temperatures do not exceed 65°C.
- Installations are made only in the UK & Republic Of Ireland.
- The water supply does not have a Chloride content greater than 300ppm.
- Units are not installed with uncontrollable heat sources (E.g. Wood Burning Stoves).
- For commercial / heavy duty installations where constant usage / reheat is required Titanium immersion heaters must be fitted in order to comply with the warranty.

Please note that invoices for servicing may be requested to prove that the unit has been serviced annually.

All the components fitted to / or supplied with the cylinder carry a 2 year guarantee. The guarantee starts when the cylinder is first filled.

## **EXCLUSIONS**

**THE EFFECTS OF SCALE BUILD UP. ANY LABOUR CHARGES ASSOCIATED WITH REPLACING THE UNIT OR ITS PARTS. ANY CONSEQUENTIAL LOSSES CAUSED BY THE FAILURE OR MALFUNCTION OF THE UNIT.**

## **CLAIMS**

**ON THE RARE OCCASION WHEN A FAULT OCCURS WE WILL ONLY CONSIDER SENSIBLE BROKEN DOWN CLAIMS SUBMITTED IN FULL AT THE THE TIME THE FAULTY PART / CYLINDER IS RETURNED. WE WILL NOT COVER CLAIMS FOR EXCESSIVE TRAVELLING TIME WHERE AN INSTALLER HAS CHOSEN TO ACCEPT A JOB MORE THAN 30 MILE FROM THEIR BASE. COSTS CAN NOT BE RECOVERED FOR THE REMOVAL OF A FAULTY UNIT FROM A DIFFICULT TO REACH AREA, OR AREA WHERE THE CYLINDER ACCESS HAS BEEN RESTRICTED. THIS IS IN CONTRADICTION WITH OUR INSTALLATION GUIDELINES WHERE A UNIT SHOULD ALWAYS BE ALLOWED SUITABLE PROVISION FOR REPLACEMENT.**

**CLAIMS WILL NOT BE ACCEPTED FOR UNITS THAT HAVE NOT BEEN INSTALLED IN ACCORDANCE WITH THIS MANUAL.**

## **GUIDANCE IN THE EVENT OF A PROBLEM**

If you have a problem in the first year contact the plumber who fitted the unit. Thereafter contact the plumber who carries out the annual servicing for you. If your cylinder develops a leak we will supply you with a new one. We ask for an up-front payment prevent fraud.

We will require the original unit to be returned to us for inspection along with a copy of your service record and

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We will require the original unit to be returned to us for inspection along with a copy of your service record and commissioning checklist. If it is confirmed that it has failed within the terms of the warranty your up front payment will be refunded. If a component part fails within the two year guarantee period we will send you a new one again with an upfront charge. Credit card details may be taken to prevent fraud. We ask you to post the faulty part back to us within one month by recorded delivery. Once the part has been tested and proven faulty a refund will be issued.

## **USER INSTRUCTION**

Your stainless system is automatic in normal use and requires only annual servicing. You should employ an competent installer to perform the annual servicing. It is your responsibility to ensure the cylinder is serviced annually and the Service Record is maintained. Failure to do so may adversely affect the warranty.

## **DISCHARGE AT THE TUNDISH**

**IF WATER IS FLOWING FROM THE SAFETY VALVES THROUGH THE TUNDISH THIS INDICATES A FAULT CONDITION AND ACTION IS NEEDED.**

If this water is hot turn the boiler and / or the immersion heater off. Do not turn off the water until the discharge runs cool. The discharge may also stop.

**CONTACT A COMPETENT PLUMBER OUT TO SERVICE / MAINTAIN THE UNIT.** Tell them you have a fault on an unvented cylinder. We stock all the spare parts they may need.

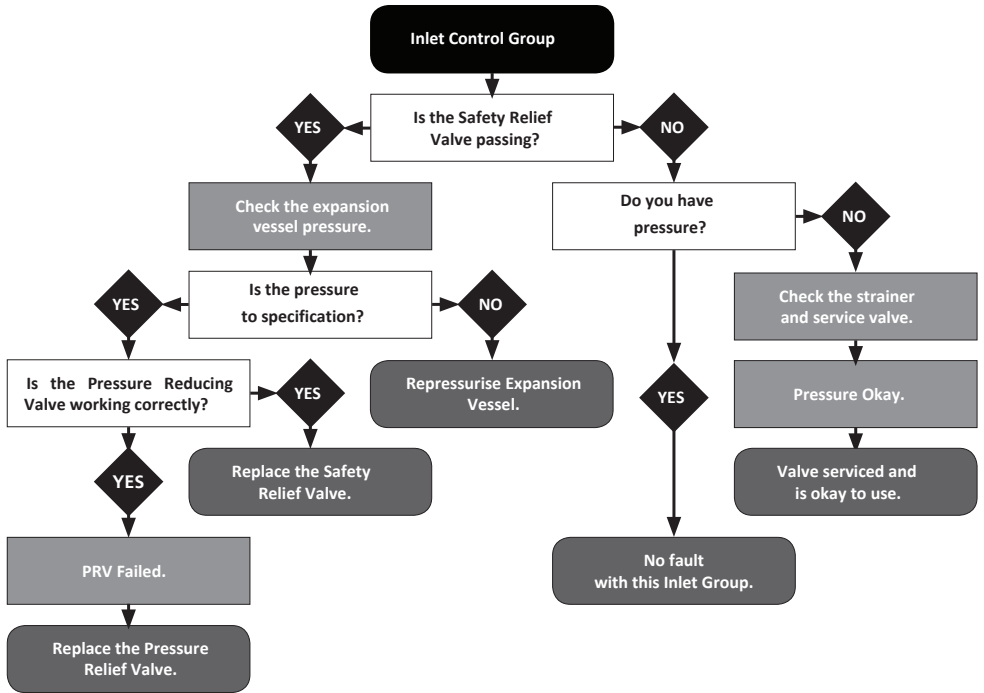
## UNVENTED CYLINDER - FAULT FINDING

Symptoms.	Possible Causes	Follow up action.
Cylinder appears to leak from within the case.	Loose cylinder connection.	Check all connection points including immersion heaters to ensure integrity of joint and remake any suspect joints.
Expansion Valve operates and water is visible at the Tundish.	Possible fault at Pressure Reducing Valve.	Follow fault finding information for Inlet Control Group.
	Back pressure from the system.	Check all mixer type outlets are served by a balanced cold service. Where not repipe or install bespoke pressure reducing valve to offending outlet.
Expansion Valve operates when cylinder is heated.	Possible fault at Expansion Vessel.	Follow fault finding information for Expansion Vessel.
Noise when operating tap outlet.	Insecure Pipework.	Increase the number of pipe clips.
	External works to public mains.	Wait for works to be completed.
Reduced water flow.	Debris from water mains.	Strip & clean or replace Inlet Control Group.
	Pressure Reducing Valve sticking.	Strip & clean or replace Inlet Control Group.
No hot water available.	Immersion heater failure.	Follow fault finding information for Immersion Heater

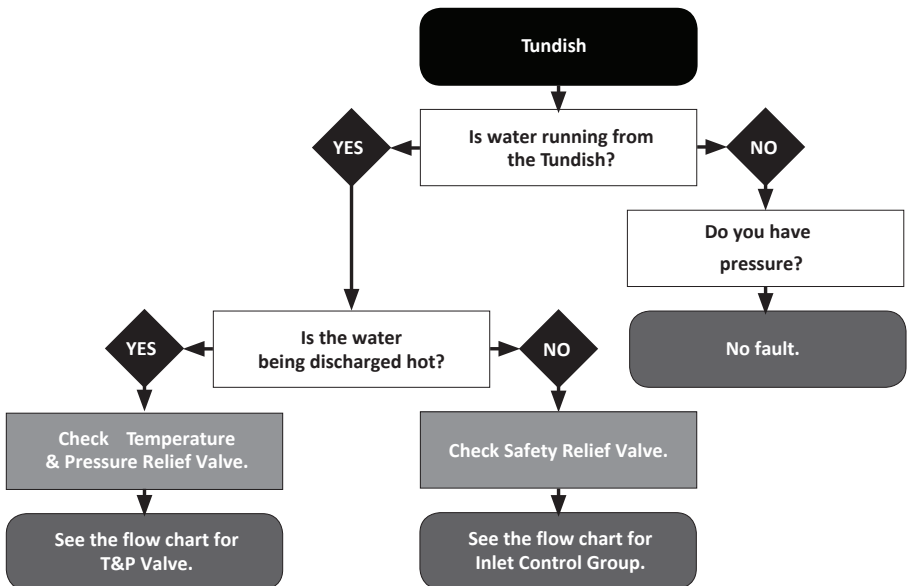
## EXPANSION VESSEL - FAULT FINDING

Symptoms.	Possible Causes	Follow up action.
Discharge of water from the Relief Valve.	Expansion Vessel is too small.	Vessel needs resizing and installation by appropriately qualified engineers.
	Pre-charge set incorrectly on vessel installation.	Pre-charge requires setting while system is de-pressurised according to cylinder manufacturers recommendations.
	Membrane is ruptured and may require replacement.	Replace membrane or entire vessel. Inspect Shrader valve for leaks or damage.
	Membrane may be partially de-pressurised due to natural losses and require re-pressurisation.	Re-pressurise or consider replacement depending on age of vessel and amount of pressure lost. Inspect Shrader valve for leaks or damage.
Leak from Flange or Water Connection.	Failure of Flange Plate.	Replace Flange Plate or entire Vessel.
	Loss of torque in Flange retaining bolts.	Re-tighten bolts as needed.
	Ruptured membrane has caused corrosion of vessel body resulting in pinhole leak.	Entire Vessel must be replaced. Inspect Shrader valve for leaks or damage.
Vessel appears to be fully of liquid when system is cold.	Membrane is de-pressurised.	Replace membrane or entire vessel. Inspect Shrader valve for leaks or damage.
Water is discharged from vessel when Shrader pin is de-pressed for inspection of air pressure.	Membrane is ruptured.	Membrane or vessel requires replacement.

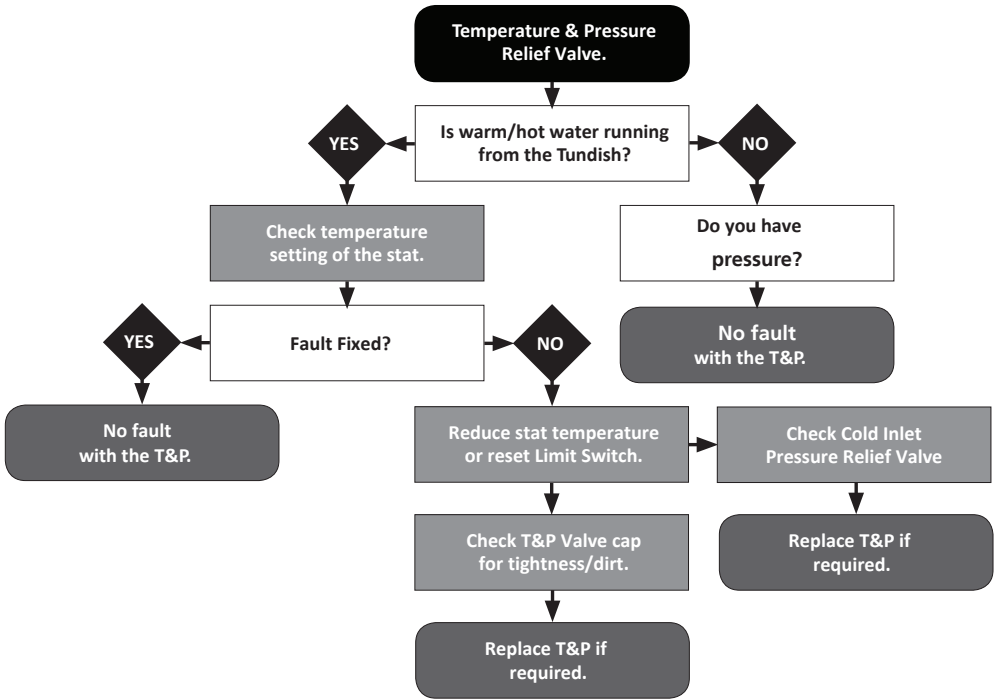
## INLET CONTROL GROUP - FAULT FINDING



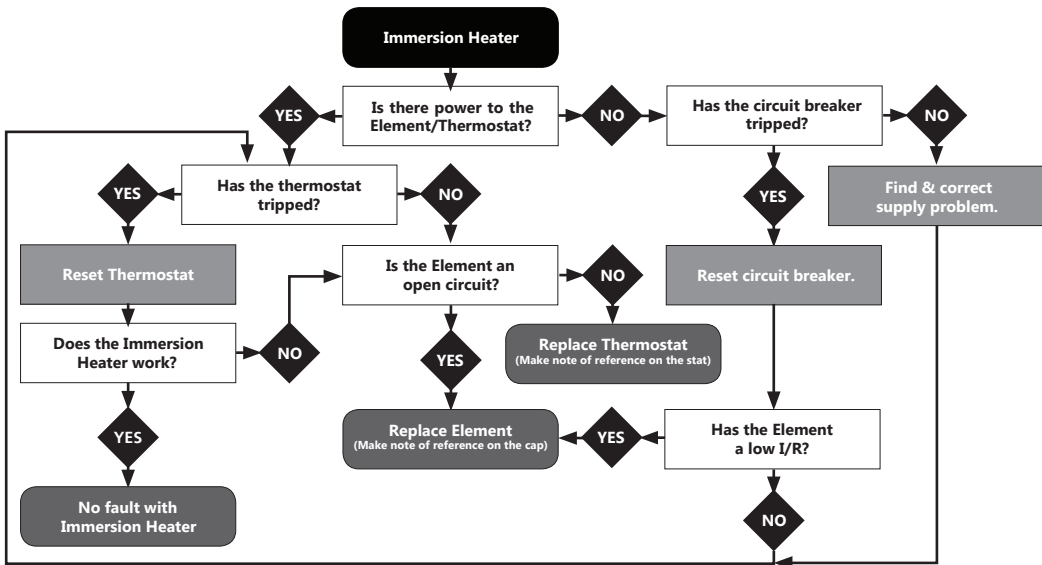
## TUNDISH - FAULT FINDING



## T&P VALVE - FAULT FINDING



## IMMERSION HEATER - FAULT FINDING



# MAINS PRESSURE HOT WATER STORAGE SYSTEM COMMISSIONING CHECKLIST

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

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

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

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

Building Regulation Notification Number (if applicable) \_\_\_\_\_

## ALL SYSTEMS PRIMARY SETTINGS (indirect heating only)

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

## ALL SYSTEMS

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

## UNVENTED SYSTEMS ONLY

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

## THERMAL STORES ONLY

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

## ALL INSTALLATIONS

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

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

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



# SERVICE RECORD

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

## Service Provider

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

**SERVICE 1** Date \_\_\_\_\_  
Engineer Name \_\_\_\_\_  
Company Name \_\_\_\_\_  
Telephone Number \_\_\_\_\_  
Comments \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
Signature \_\_\_\_\_

**SERVICE 2** Date \_\_\_\_\_  
Engineer Name \_\_\_\_\_  
Company Name \_\_\_\_\_  
Telephone Number \_\_\_\_\_  
Comments \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
Signature \_\_\_\_\_

**SERVICE 3** Date \_\_\_\_\_  
Engineer Name \_\_\_\_\_  
Company Name \_\_\_\_\_  
Telephone Number \_\_\_\_\_  
Comments \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
Signature \_\_\_\_\_

**SERVICE 4** Date \_\_\_\_\_  
Engineer Name \_\_\_\_\_  
Company Name \_\_\_\_\_  
Telephone Number \_\_\_\_\_  
Comments \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
Signature \_\_\_\_\_

**SERVICE 5** Date \_\_\_\_\_  
Engineer Name \_\_\_\_\_  
Company Name \_\_\_\_\_  
Telephone Number \_\_\_\_\_  
Comments \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
Signature \_\_\_\_\_

**SERVICE 6** Date \_\_\_\_\_  
Engineer Name \_\_\_\_\_  
Company Name \_\_\_\_\_  
Telephone Number \_\_\_\_\_  
Comments \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
Signature \_\_\_\_\_

**SERVICE 7** Date \_\_\_\_\_  
Engineer Name \_\_\_\_\_  
Company Name \_\_\_\_\_  
Telephone Number \_\_\_\_\_  
Comments \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
Signature \_\_\_\_\_

**SERVICE 8** Date \_\_\_\_\_  
Engineer Name \_\_\_\_\_  
Company Name \_\_\_\_\_  
Telephone Number \_\_\_\_\_  
Comments \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
Signature \_\_\_\_\_

**SERVICE 9** Date \_\_\_\_\_  
Engineer Name \_\_\_\_\_  
Company Name \_\_\_\_\_  
Telephone Number \_\_\_\_\_  
Comments \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
Signature \_\_\_\_\_

**SERVICE 10** Date \_\_\_\_\_  
Engineer Name \_\_\_\_\_  
Company Name \_\_\_\_\_  
Telephone Number \_\_\_\_\_  
Comments \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
Signature \_\_\_\_\_

## THE HWA CHARTER

The Charter offers consumers quality assurance, product satisfaction, and confidence in the manufacturer, that they will deliver a service beyond just supplying the product.

The HWA Charter Code of Practice requires that, all members adhere to the following:

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



## CONDITIONS OF SALE

### 1. DEFINITIONS

"Buyer" means the person who accepts a quotation of the Company for the sale of the Goods or whose order for the Goods is accepted by the Company

"Company" means IMC Cytidine

"Conditions" means the terms and conditions of sale set out in this document and any special terms and conditions agreed in writing by the Company and the Buyer

"Contract" means the contract for the purchase and sale of the Goods

"Goods" means the goods which the Company is to supply and which the Buyer agrees to buy in accordance with these conditions

"Price" means the price of the Goods including transport and insurance (if any) 1.2 Any reference in these Conditions to any provision of a statute shall be construed as a reference to that provision as amended or re-enacted or extended at the relevant time

1.3 The Conditions in these Conditions are for convenience only and shall not affect their interpretation

### 2. BASIS OF SALE

2.1 The Company shall sell and the Buyer shall purchase the Goods in accordance with the Conditions

2.2 The Company's quotation (if provided by the Company and accepted by the Buyer) or

2.3 If the Company does not submit a quotation and following a request or purported order from the Buyer for Goods in accordance with the Company's offer to the Buyer (if accepted by the Buyer) subject in either case to these Conditions as which shall govern the Contract to the exclusion of any other terms subject to which any such quotation or offer is accepted, or purported to be accepted.

2.4 Any variation to these Conditions (including any special terms and conditions agreed between the parties) shall be in writing unless agreed in writing by the Company

2.5 Any advice or recommendation given by the Company or its employees or agents to the Buyer or other person in connection with the purchase or use of the Goods which is not confirmed in writing by the Company is followed or acted upon entirely at the Buyer's own risk and accordingly the Company shall not be liable for any damage or compensation payable to the Buyer in connection with the Goods

2.6 Any typographical clerical or other error or omission in any sales literature or quotation price list shall be deemed to be corrected by the Buyer in accordance with the quotation price list acceptance of offer invoice or other document or information issued by the Company shall be subject to correction without any liability on the part of the Company

2.7 All specifications, drawings, particulars of weight and dimension and performance data contained in any of the Company's literature are approximate only. The Buyer agrees to accept, approve and/or modify any specifications, designs and dimensions without notice.

2.8 For the avoidance of doubt nothing in these Conditions or any Contract shall constitute an offer or third party benefit nor the right to enforce any Contract of Conditions or any Contract or order pursuant to the Contract (Rights of Third Parties) Act 1999 or otherwise

### 3. THE PRICE AND PAYMENT

3.1 The Company shall deliver the Goods to the Buyer

3.1.1 The Company's quoted price which shall only be valid for 30 days from its date after which the time the Price may be altered by the Company and shall be subject to the following requirements:

3.1.2 Where no price has been quoted the Price listed in the then current price list of the Company shall apply to the Buyer from time to time.

3.2 Except as otherwise stated in the Company's quotation or in any price list of the Goods, or otherwise agreed in writing between the Buyer and the Company, all prices are in sterling and the Buyer to include the Company's charges for transport and insurance

3.3 The Price and any other sums payable by the Buyer to the Company is exclusive of any applicable Value Added Tax, which the Buyer shall be additionally liable to pay to the Company.

3.4 [Subject to any special terms agreed in writing between the Buyer and the Company] the Company may invoice the Buyer for the Price of the Goods on or at any time after delivery of the Goods, (or any instalment of the Goods) unless the Goods are to be collected by the Buyer or the Buyer wrongfully fails to take delivery of the Goods, in which case the Company shall be entitled to invoice the Buyer for the Price at any time after the Company has notified the Buyer that the Goods are ready for collection or (as the case may be) the Company has tendered delivery of the Goods. 3.5 In the event that the Buyer fails to pay the Price or VAT shall be due within the agreed period from the date of the invoice without deduction or set off. Time for payment shall be of the essence

3.6 If the Buyer fails to make any payment on the due date then without prejudice to any other remedy available to the Company the Company shall be entitled to:

3.6.1 cancel the contract or suspend any further deliveries of the Goods

3.6.2 appropriate any payment made by the Buyer to such of the Buyer (or the Goods) as the Buyer may have in possession of the Company

3.6.3 the Company may think fit (notwithstanding any purported approval by the Buyer) and

3.6.4 charge the Buyer (notwithstanding both before and after any judgement) on the amount up to the rate of 8% per cent per annum above Barclays Bank PLC base rate from time to time until payment in full is made (a part of a month being treated as a full month for the purpose of calculating interest)

### 4. THE GOODS

4.1.1 The quantity and description of the Goods shall be as set out in the Company's quotation or in the Company's offer (as the case may be), and

4.1.2 the quality and specification for the Goods shall be as set out in the Company's quotation or (where there is no quotation) in the Company's literature and brochure for the Goods in question.

4.2 The Buyer shall be responsible to the Company for ensuring the accuracy of the terms of any order and any information supplied for the Company as to its requirements (including but without limitation the use to which the Goods will be put and any applicable specification) submitted by the Buyer and for giving the Company any necessary information relating to the Goods within a sufficient time for the enable the Company to perform the Contract in accordance with its terms 4.3 If the Goods are to be manufactured or any process is to be applied to the Goods by the Company in accordance with a special requirement of the Buyer, the Buyer shall be indemnifying the Company against all losses, claims, damages, claims, demurrals, liabilities and expenses awarded against or incurred by the Company in connection with and/or agreed to by the Company in settlement of any claim for infringement of any copyright, design, patent or other intellectual or industrial property rights of any other person which results from the Company's use of the Buyer's specification or from compliance by the Company with the Buyer's instructions whether express or implied

4.4 No order which has been accepted by the Company may be cancelled by the Buyer except with the agreement in writing of the Company and on terms that any deposit paid shall not be repayable and the Buyer shall indemnify the Company in full against all loss (including loss of profit) costs (including the cost of all labour and materials used) damages charges and expenses incurred by the Company in carrying out any work in respect of the Goods or otherwise as a result of cancellation of the contract, sketches or drawings or otherwise by or submitted in confidence by the Company shall remain the property of the Company and may not be disclosed or used by or copied or otherwise reproduced by the Buyer without the prior written consent of the Company

### 5. DELIVERY OF GOODS

5.1 Unless otherwise agreed in writing the Company shall deliver the Goods to such delivery address as is specified by the Buyer to the Company at such time as the Goods are ready for despatch (as the case may be) and may be ready for delivery

5.2 The Buyer shall be responsible for offloading the Goods at the delivery address and shall advise the Company of any local or internal laws, bylaws or rules relating to offloading or loading of goods at the delivery address

5.3 The Buyer shall be responsible for ensuring that access to the delivery address is wholly by a road with a surface capable of withstanding the weight and size of a motor vehicle carrying the Goods

5.4 Any dates quoted for delivery of the Goods are approximate only and the Company shall not be liable for any delay in delivery of the Goods however caused. Time for delivery shall not be of the essence unless previously agreed by

the Company in writing. The Goods may be delivered by the Company in advance of the Delivery Date upon giving reasonable notice to the Buyer

5.5 Where the Goods are to be delivered in instalments each instalment shall constitute a separate contract and failure by the Company to deliver any one or more of the instalments in accordance with these Conditions or any claim by the Buyer in respect of any one or more instalments shall not entitle the Buyer to treat the Contract as a whole as repudiated

5.6 If the Buyer fails for any reason whatsoever to take delivery of the Goods or fails to give the Company adequate delivery instructions at the time stated for delivery (otherwise than by reason of any cause beyond the Buyer's reasonable control or by reason of the Company's fault) then without prejudice to any other right or remedy available to the Company the Company may:

5.6.1 store the Goods until actual delivery and charge the Buyer for the reasonable costs (including insurance) of returning the Goods to the Company's premises, storage and for transport, packing and insurance for re-delivery of the Goods; or

5.6.2 sell the Goods at the best price reasonably obtainable and after deducting all reasonable expenses incurred in doing so and the Buyer shall be liable to pay the Price or charge the Buyer for any shortfall below the Price

5.8 Goods may not be returned to the Company except by prior written permission of the Company and the Buyer shall be liable to pay the cost of such return to the Buyer of handling and re-stocking charges, transport and all other costs incurred by the Company

### 6. RISK AND RETENTION OF TITLE

6.1 Goods supplied by the Company shall be at the Buyer's risk immediately upon delivery to the Buyer or into custody on the Buyer's behalf or to the Buyer's Order. The Buyer shall effect adequate insurance of the Goods against all risks to the full value value of the goods, such insurance to be effective from the time of delivery until property in the goods shall pass to the Buyer as hereinafter provided.

6.2 Property in the goods supplied hereunder shall pass to the Buyer when full payment is made to the Buyer by the Buyer or the Company to the Buyer in full.

6.2.1 the goods of the subject of this of other contract between the Buyer and the Company which are identified as such in the full price of the goods sold under this contract, have been delivered to the Buyer but not paid for in full. 6.3 all property in the goods supplied hereunder passes to the Buyer in accordance with paragraph 6.2

6.3.1 The Buyer shall hold the goods in a fiduciary capacity for and shall store the same separately from any other goods in the Buyer's possession and in a manner which will not identify the goods as the property of the Buyer

6.3.2 The Buyer shall immediately return the goods to the Company should the Companies authorised representative so request. All the necessary incidents associated with a fiduciary relationship shall apply.

6.4 If the Buyer possesses the right to set off or set off against the Buyer the happening of any of the following events, namely:-

6.4.1 if the Buyer fails to make payment in full for the goods within the time stipulated in the Company's invoice or fails to do anything which would entitle an administrator or an administrative receiver or a receiver to take possession of any assets or which would entitle any person to present a petition for winding up of the Company or to appoint an administrator or receiver of the Company;

6.4.2 if the Buyer, not being a company, commits any act of bankruptcy, makes a proposal to his or her creditors for a compromise or does anything which would entitle a petition for a bankruptcy Order to be presented.

6.4.3 if the Buyer fails to pay the full price of the goods sold under this contract, has been delivered to the Buyer but not paid for in full. 6.3 all property in the goods supplied hereunder passes to the Buyer in accordance with paragraph 6.2

6.5 The Buyer hereby grants to the Company an irrevocable licence to enter at any time any vehicle or premises owned or occupied by the Buyer or in the possession of the Buyer for the purpose of repossessing and recovering any such goods the property in which remains in the Company under paragraph (2) above. The Company shall not be responsible for and the Buyer will indemnify the Company against liability in respect of damage caused to any vehicles or premises in such repossession and removal of the goods if the same was not reasonably practicable to avoid.

6.6 notwithstanding paragraph (4) hereof and subject to paragraph (5) hereof, the Buyer shall be permitted to sell the goods to third parties in the normal course of business. In doing so the Company shall not be deemed to have authorised the Company as commission agent and the proceeds of such sale:-

6.6.1 shall be held in trust for and in a manner which enables such proceeds to be identified as such, and

6.6.2 shall be retained by the other monies not paid into an overdraft bank account. The Company, as principal, shall remunerate the Buyer as commission agent a commission depending upon the surplus which the Buyer can obtain over and above the sum, stipulated in this contract of supply which will satisfy the Company.

6.7 In the event that the Buyer shall sell any of the goods pursuant to clause (5) hereof, the Buyer shall be deemed to have authorised the Company to ascertain the identity and address of the third party to whom the goods have been sold, 6.8 before property in the goods passes to the Buyer under paragraph (3) above the goods are or become affixed to any land or building owned by the Buyer it is hereby agreed and acknowledged that the Buyer shall not have the effect of passing any title to the Buyer. Furthermore, if before property in the goods shall pass to the Buyer under paragraph (3) hereof, the goods are or become affixed to any land or building owned by the Buyer, the Buyer shall be deemed to have authorised the Buyer 6.8.1 ensure that the goods are capable of being removed without material injury to the land and all necessary steps to prevent title to the goods from passing to the landlord of such land or building.

6.8.2 take all building steps to prevent title to the goods from passing to the landlord of such land or building.

6.8.3 forthwith inform the Company in writing of such affixation and of the address of the land or building concerned. The Buyer warrants to repair and make good any damage caused by the affixation of the goods to or their removal from any land or building and to indemnify the Company against all loss or damage or liability that the Company may incur or sustain as a result of affixation or removal. 6.9 in the event that, before property in the goods has passed to the Buyer under paragraph (3) hereof, the goods or any of them are lost, stolen, damaged or destroyed:-

6.9.1 the Buyer shall forthwith inform the Company in writing of the fact, the circumstances and such loss, theft, damage or destruction.

6.9.2 the Company shall assign to the Company the benefit of any insurance claim in respect of the goods so lost, stolen, damaged or destroyed.

7. WARRANTIES AND LIABILITY FOR PRODUCTS INSTALLED IN THE UK

7.1 The Company warrants that the Goods supplied to the Company pursuant to this contract will be free from defects in material and workmanship for a period of 24 months from their delivery to the Buyer, unless a period of different duration is specified in the product manual included in respect of that product and/or its specific warranty terms, or specified components thereof.

7.2 The warranty in clause 7.1 is given by the Company subject to the following conditions:

7.2.1 The Company shall have no liability in respect of any defect in the Goods arising from any information drawing design or specification supplied by the Buyer.

7.2.2 The Company shall have no liability in respect of any defect arising from fair wear and tear which damage negligence abnormal working conditions failure to follow the Company's instructions (whether oral or in writing) misuse or alteration or repair of the Goods without the Company's approval.

7.2.3 The Company shall have no liability in respect of any defect arising from any use of the Buyer, or the Buyer's customer's property, caused by failure of the Company's Goods. Any such costs incurred shall be claimed by the Buyer or the Customer from the third party.

7.2.4 the above warranty does not extend to parts materials equipment not manufactured by the Company in respect of which the Buyer shall only be entitled to the warranty in any such warranty or guarantee as is given by the manufacturer to the Buyer.

7.3 The Buyer shall not make any statements or representations or give any warranty to any third party in respect of any Goods other than the terms made or given by the Company. If the Buyer does so in these Conditions nor shall the Buyer have any authority to commit the Company to provide any service in relation to the Goods. The Buyer shall indemnify the Company against all losses, damages, claims, demands, liabilities and expenses incurred by the Company in respect of the Goods arising from such statement, representation or warranty made or given by the Buyer in contravention of this clause.

7.4 The Company's liability to the Buyer or for -

7.4.1 death or injury resulting from its own or that of its employees' agents' or subcontractors' negligence; and

7.4.2 damage suffered by the Buyer as a result of any breach of the obligations imposed by Section 12 of The Sale of Goods Act 1979 shall not be limited

7.5 Subject as expressly provided in these Conditions all other warranties conditions or terms whether implied by statute or common law or otherwise are hereby excluded

7.6 If the Buyer fails to deliver the Goods for any reason other than any cause beyond the Company's reasonable control or the Buyer's fault then the Company shall only be liable to the Buyer for and the Company's liability shall be limited to the excess (if any) of the cost to the Buyer (in the cheapest available market) of similar goods to replace those not delivered over the Price of the Goods

7.7 The Buyer shall examine all Goods delivered forthwith following delivery. Any claim by the Buyer which is based on any defect in the quality or condition of the Goods or their failure to correspond with specification shall (whether or not the Goods are released by the Buyer) be subject to the Buyer's written notification of the date of delivery (where the defect or failure was not apparent on reasonable inspection) within a reasonable time after discovery of the defect or failure. If delivery is not made to the Buyer and the Goods are not delivered accordingly the Buyer shall not be entitled to reject the Goods and the Company shall have no liability for such defect or failure and the Buyer shall be bound to pay the Price as if the Goods had been delivered in accordance with the Contract. In no event shall the Buyer be entitled to reject the Goods on the basis of defect or failure of the Goods if it is sought that it would be unreasonable for the Buyer to reject them 7.8 The Buyer shall be entitled to examine any Goods which are the subject of any claim by the Buyer and to remove such Goods or any part thereof for testing. No tests carried out by the Buyer will be recognised by the Company unless carried out strictly in accordance with a method previously agreed by the Company as being suitable for the purpose.

7.9 Where any valid claim is made in respect of any of the Goods which is based on any defect in the quality or condition of the Goods or their failure to meet specification is notified to the Company in accordance with these Conditions the Company shall be entitled to repair or replace the Goods (or the part in question) free of charge or at the Company's sole discretion or to refund the full price of the Goods, if the Buyer is of the Price) but the Company shall have no further liability to the Buyer.

7.10 Where failed Goods are returned to the Company and subsequently found to be not in fault found to be defective, the Buyer shall be bound to accept these terms and conditions. The Company reserves the right to claim any such defective goods entailed, from the Buyer.

7.11 The Company shall not be liable to the Buyer or be deemed to be in breach of the Contract by reason of any delay in performance or any failure to perform any of the Company's obligations in relation to the Goods if the delay or failure was due to any cause beyond the Company's reasonable control without limiting the foregoing, the following shall be regarded as causes beyond the reasonable control of the Company: 7.11.2 act of God, explosion, flood, pest, war, insurrection, fire or accident.

7.12.2 war or threat of war, sabotage, insurrection, civil disturbance or requisition; 7.12.3 acts, restrictions, regulations, laws, orders, prohibitions, or actions of any kind (or any of them) of any Government, Parliamentary or Local Authority.

7.12.4 imports or exports, regulations or embargos;

7.12.5 strikes, lockouts, or other industrial action or trade disputes (whether employees of the Company or of a third party).

7.12.6 difficulties in obtaining raw materials, labour, fuel, parts or machinery; 7.12.7 power failure, failure of tele-communications facilities, failure or breakdown of plant, machinery or vehicles;

7.12.8 theft or malicious damage;

7.12.9 defaults for any reason whatsoever of suppliers or sub-contractors of the Company.

7.12.10 incalculable or inaccuracy of any technical information which it is the responsibility of the Buyer to provide

### 8. INSOLVENCY OF THE BUYER

8.1 This clause applies if:

8.1.1 the Buyer makes any composition or voluntary arrangement with its creditors (being either a liquidator or former becomes bankrupt or (being a company) becomes subject to an administration order or seeks an out of court route into administration or goes into liquidation (otherwise than for the purposes of amalgamation or reconstruction) or is forced to close or to cease to trade (within the meaning of the Insolvency Act 1986); or

8.1.2 an encumbrancer takes possession or a receiver or manager or administrative receiver or administrator is appointed of any of the property or assets of the Buyer, or

8.1.3 the Buyer ceases to trade, or

8.1.4 the Company reasonably apprehends that any of the events mentioned above is about to occur in relation to the Buyer and notifies the Buyer accordingly 8.2 If this clause applies then without prejudice to any other right or remedy available to the Company the Company shall be entitled to stop any Goods in transit, cancel the Contract or suspend any further deliveries under the Contract without any liability to the Buyer and if the Goods are not delivered or not delivered in full, the Buyer shall be deemed immediately due and payable notwithstanding any previous agreement or arrangement to the contrary

### 9. HEALTH AND SAFETY INFORMATION

The Buyer agrees and undertakes with the Company to ensure that the provisions of all instruction manuals including health and safety instructions and any other information or document relating to the use of the Goods provided by the Company with the Goods are fully implemented so as to ensure so far as is reasonably practicable that the Goods will be safe and without risk to health at all times, when it is being installed, used, cleaned or maintained by a person at work and that all such manuals/instructions or documents remain with the Goods.

### 10. GENERAL

10.1 The Contract is personal to the Buyer which may not assign or dispose of any of its rights or obligations or otherwise delegate any of its obligations under the Contract without the consent of the Company.

10.2 The Company shall be entitled to assign its rights and obligations under the Contract to and sub-contract or otherwise delegate any of its obligations under the Contract.

10.3 Any notice required or permitted to be given by either party to the other under these Conditions shall be in writing including a facsimile addressed to that party at its registered office or principal place of business or such other address as may be notified at the relevant time having been notified pursuant to this provision to the party giving the notice, and shall be deemed to have been received by the party to whom it was addressed, if sent by facsimile upon its transmission if during a normal business day and if not during a normal business day, and sent by post on the next business day.

10.4 No waiver by the Company of any breach of the Contract by the Buyer shall be considered as a waiver of any subsequent breach of the same or any other provision of the Contract. Any provision of the Contract which is not binding on the Company shall be invalid or unenforceable in whole or in part the validity of the other provisions of these Conditions and the remainder of the provision in question shall not be affected thereby

10.6 The Contract and these Conditions shall be governed by the laws of England 10.7 The parties hereby submit to the non-exclusive jurisdiction of the English courts 10.8 The Buyer shall indemnify the Company for all costs and damages, including attorneys' fees, suffered by the Company in respect of the Contract and the Buyer shall be deemed to have agreed to these terms and conditions.

### 11. INFORMATION

The Company will provide the Buyer on request with information as to the proper and safe use of the Goods and the Buyer shall all times obey and comply with the Company's instructions or other information relating to the use of the Goods

*Specific product warranty terms are available on request.*

*Terms & Conditions may change without prior notice being given, for up to date Terms please visit [www.mcsfinders.com/terms](http://www.mcsfinders.com/terms)*









