

RMcylinders

Direct

DIRECT UNVENTED ELECTRIC WATER HEATER WITH *EXTERNAL* EXPANSION VESSEL

INSTALLATION MANUAL ISSUE 2-2018

FOR MORE INFORMATION GO TO:
WWW.RMCYLINDERS.COM



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.

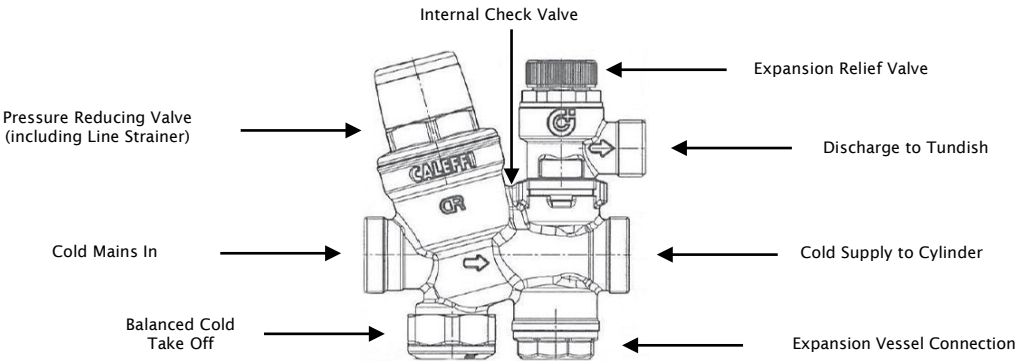
BENCHMARK

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

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 CaCO₃ 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 (µS/cm), is directly proportional to the TDS content of the water. TDS, in mg/L, is approximately 70% of the conductivity in µS/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. 16 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.

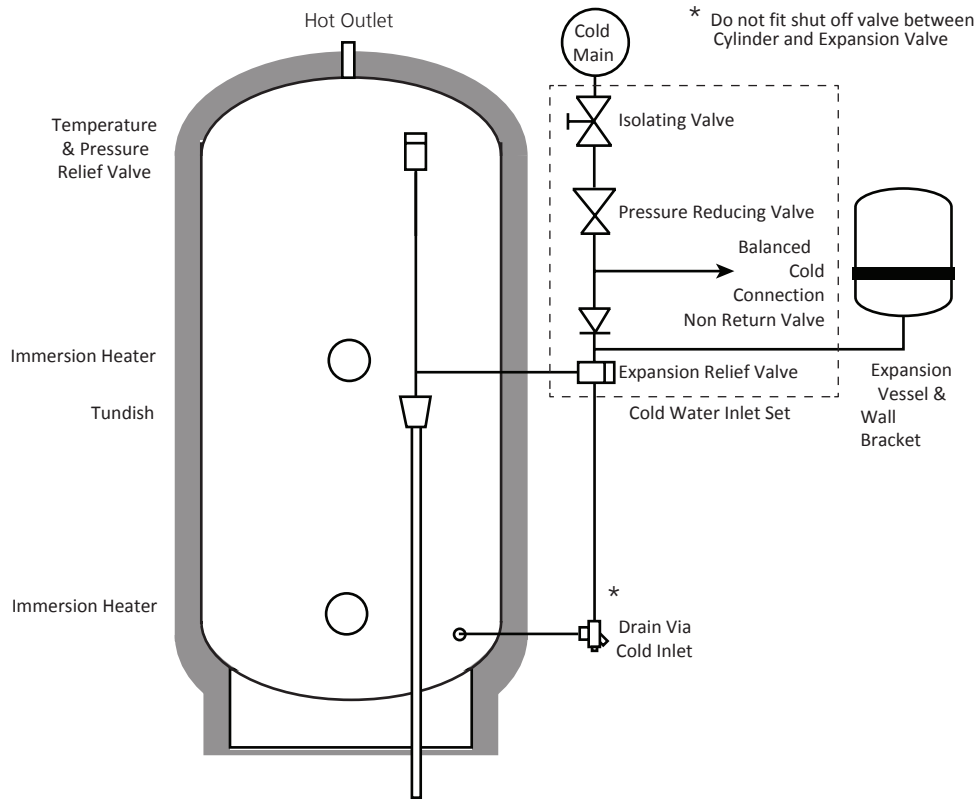
SITING THE UNIT

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 2.5mm² 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”.

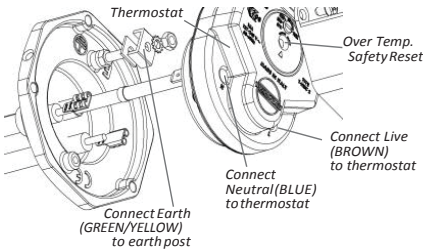
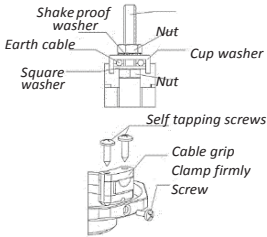


Figure 1



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 1½" 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

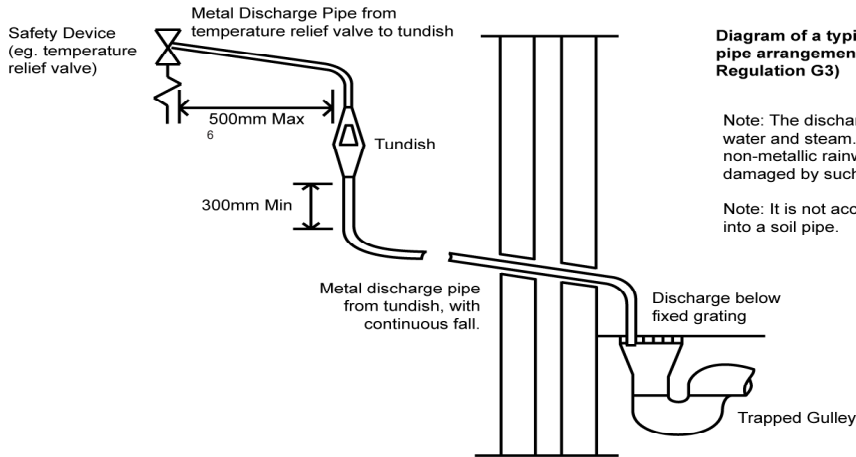


Figure 5



Figure 6

DISCHARGE ARRANGEMENT



Full detail of Building Regulation G3 is available as a free download from: www.planningportal.gov.uk. 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 CO₂ 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

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 to prevent fraud.

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.

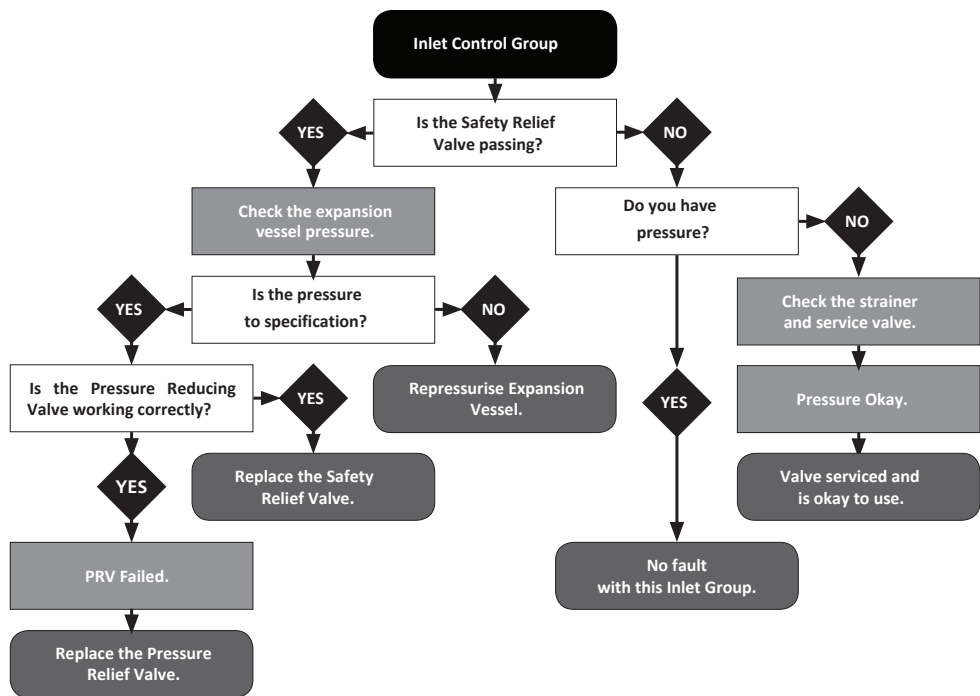
UNVENTED CYLINDER - FAULT FINDING

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.
Reduced water flow.	External works to public mains.	Wait for works to be completed.
	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

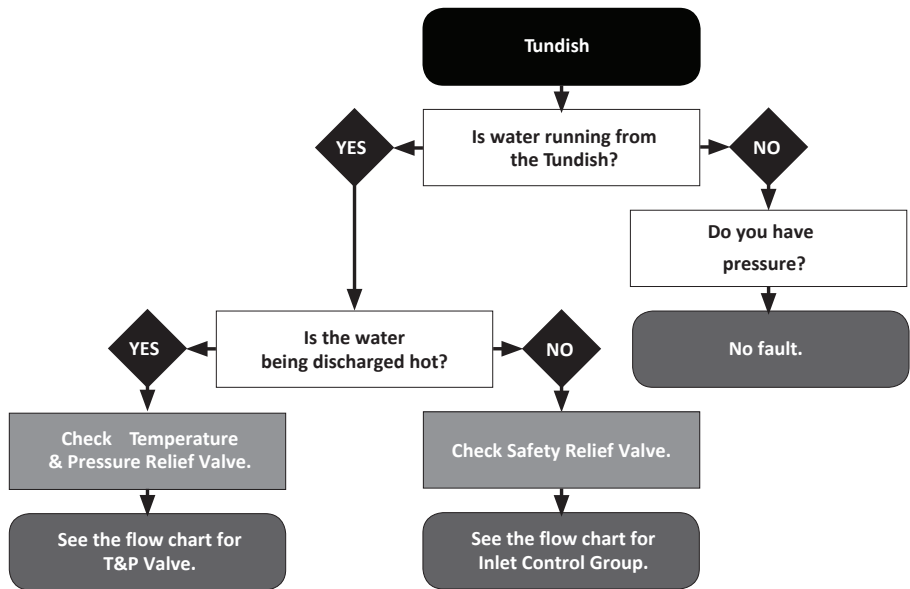
EXPANSION VESSEL - FAULT FINDING

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.

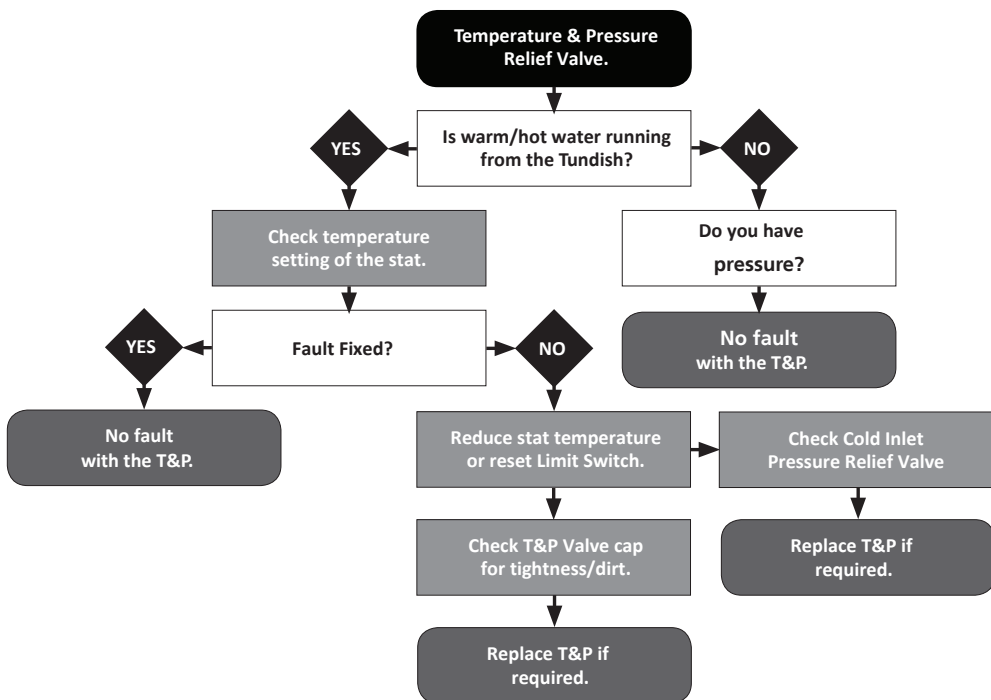
INLET CONTROL GROUP - FAULT FINDING



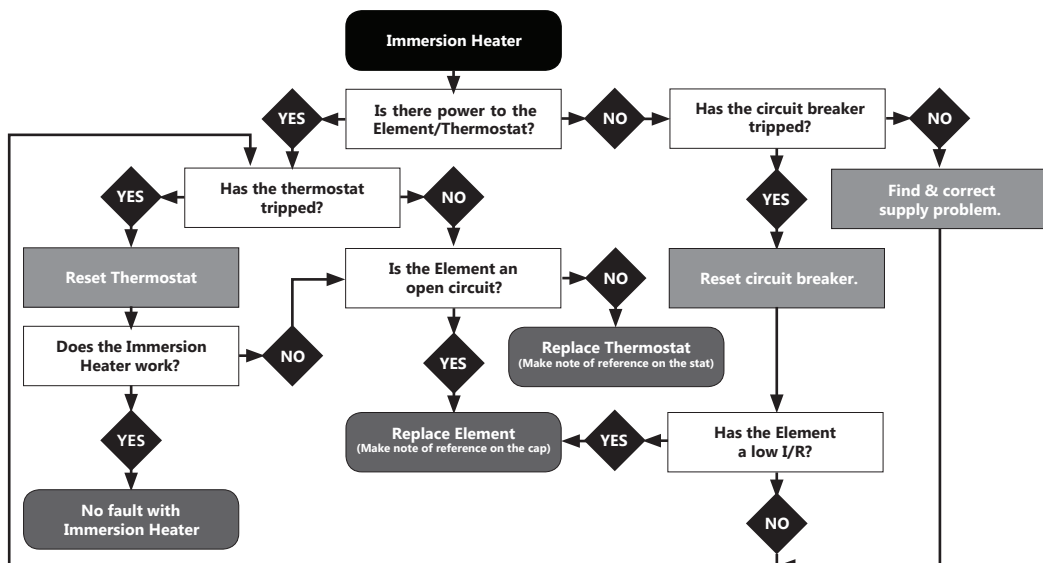
TUNDISH - FAULT FINDING



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.



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

"Contract" means RM Cylinders.

"Conditions" means the standard 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 purchase in accordance with these conditions

"Price" means the price for 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 re-enacted or extended at the relevant time

1.3 The headings 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:-

2.1.1 the Company's quotation (if submitted by the Company and accepted by the Buyer) or

2.1.2 (if the Company does not provide a quotation and following a request or purported order from the Buyer for Goods) in accordance with the Company's offer to supply the Goods in accordance with the Company's standard Conditions, which shall govern for Contract to the exclusion of any other terms, subject to which any such quotation or offer is accepted, or purported to be accepted

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

2.3 Any advice or recommendation given by the Company or its employees or agents to the Buyer or its employees or agents as to the storage application 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 such loss or damage suffered by the Buyer or its employees or agents

2.4 Any typographical clerical or other error or omission in any sales literature 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

2.5 All specifications, drawings, particulars of weight and dimension and performance data contained in any of the Company's literature are approximate only

2.6 The Company reserves the right to improve and/or modify any specifications, descriptions or drawings without notice

2.7 For the avoidance of doubt nothing in these Conditions or any Contract shall

3. THE PRICE AND PAYMENT

3.1 The Company shall be entitled to effect delivery of the Goods to the Buyer at the time when the Price may be altered by the Company and shall be subject to the following conditions:

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

3.1.2 where no price has been quoted the Price listed in the then current price list of the Company sent by the Company to the Buyer from time to time.

3.1.3 Except as otherwise stated in the Company's quotation or in any price list of the Company, the Goods shall be delivered to the Buyer and the Company, all prices are given by the Company to include the Company's charges for transport and insurance.

3.1.4 The Company shall not be responsible for any sums payable by the Buyer to the Company in exclusive of any applicable Value Added Tax, which the Buyer shall be additionally liable to pay to the Company.

3.1.5 Where 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 installment of the Goods) unless the Goods are delivered to the Buyer in accordance with the terms of the contract of the Goods, in which event 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 delivery.

3.1.6 The Company shall be entitled to invoice the Buyer for the Price of the Goods at any time after the Company has notified the Buyer that the Goods are ready for delivery.

3.1.7 Save as otherwise agreed in writing, payment of the Price and VAT shall be due within the agreed period from the date of the invoice without deduction or set off.

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

3.1.9 cancel the contract or suspend any further deliveries to the Buyer

3.1.10 deliver the Goods to any third party (other than the Buyer or the Goods) supplied under any other contract between the Buyer and the Company as the Company may think fit (notwithstanding any purported appointment by the Buyer as agent).

3.1.11 The Company shall be entitled to recover from the Buyer the sum of:

3.1.12 the agreed Price of the Goods (both before and after any judgement) on the amount unpaid at the rate of 8% per cent per annum above Barclays Bank PLC base rate (which shall be the Bank's base rate for a period of 12 months being treated as the full month for the purpose of calculating interest)

4.1 The quantity and descriptions of the Goods shall be as set out in the Company's purchase orders.

4.2 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 specifications.

4.3 The Buyer shall be responsible to the Company for ensuring the accuracy of terms of any order and any information supplied for the Company as its order. The Buyer shall ensure that all information submitted by it is true, correct and verifiable (including any applicable specification) submitted by the Buyer and for giving effect to any necessary information relating to the Goods within a sufficient time to enable the Company to manufacture or procure the Goods.

4.4 If the Goods are to be manufactured or any process is to be applied to the Goods by the Company in accordance with a specification submitted by the Buyer the Buyer shall indemnify the Company against all claims, damages, losses, costs, expenses and expenses awarded against or incurred by the Company in connection with or paid or agreed to be paid by the Company in settlement of any claim for infringement, of any patent copyright design trade mark or other intellectual or personal property rights which may be asserted against or incurred by the Company in connection with or from compliance by the Company with the Buyer's instructions whether express or implied.

4.5 No order which has been accepted by the Company may be cancelled by the Buyer except as provided in writing of the Company and on terms that any deposit paid shall not be repayable to the Buyer shall indemnify the Company in full for all loss suffered by the Company of lost profits or otherwise caused by the Buyer's 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.

4.6 The Company shall retain title to the Goods until payment in full has been received by the Company shall remain the property of the Company and may not be disclosed or disposed of by the Buyer without the prior written consent of the Company.

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 or part thereof (as the case may be) are ready for delivery.

5.2 The Buyer shall be responsible for affording the Goods at the delivery address and shall advise the Company of any local laws, bylaws or rules relating to parking or loading of vehicles 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 vehicle carrying the Goods.

5.4 Any dates quoted for delivery of the Goods are approximate only and the Company shall not be responsible for any delay in delivery of the Goods; however, except in the case of a delay caused by the Buyer, the Company shall not be liable for any delay in delivery of the Goods unless previously agreed by the Buyer.

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.

5.1 Where the Goods are to be delivered in instalments, the Company shall continue to deliver the Goods in accordance with the Delivery Schedule until the delivery of 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 terminate the Contract as a whole.

5.2 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 Buyer's failure to provide the Company with the correct data, the Company may:

5.2.1 store the Goods until such time as the Buyer gives the Company for the reasonable taking of delivery of the Goods; or

5.2.2 repackage, re-label, re-secure, re-wrap, re-stow, re-store, re-warehouse, re-store, store, and transport, packaging and insurance for re-delivery of the Goods; or

5.2.3 sell the Goods at the best price readily obtainable and (after deducting all reasonable storage and selling expenses) account to the Buyer for the excess over the cost of the Goods.

5.3 Goods may not be returned to the Company except by prior written permission of an authorised officer of the Company and such return shall be subject to payment by the Company of handling and re-stocking charges, transport and all other costs incurred by the Company.

6.1 the 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. This shall include the risk of loss or damage to the goods, whether or not the goods are insured, and the value of the goods, such insurance to be effective from the time of delivery until payment in the goods shall pass to the Buyer as hereinafter provided.

6.2 The Buyer shall be responsible for the payment of the goods to the Buyer when full payment has been made by the Buyer to the Company for:

6.3 the goods of the subject of this contract.

6.4 The Buyer shall be responsible for the payment of the contract between the Buyer and the Company which, at the time of payment of the full price of the goods sold under this contract, have been delivered to the Buyer but not paid for in full goods third property (the goods) shall be held hereunder passes to the Buyer in accordance with paragraph (3) hereof.

6.5 (1) The Buyer shall hold the goods in a fiduciary capacity for us and shall store the same separately from any other goods of the Buyer's possession and in a manner which shall be acceptable to our Company.

6.6 (2) The Buyer shall immediately return the goods to the Company should the Company's authorized representative to request. All the necessary incidents and expenses shall be borne by the Buyer.

6.7 The Buyer's right to possess the goods shall cease forthwith upon the happening of any of the following events, namely:

6.8 (1) The Buyer fails to make payment in full of the goods within the time stipulated in clause 3 hereof.

6.9 (2) If the Buyer, not being a company, commits any act of bankruptcy, makes a proposal to be liquidated or becomes bankrupt, or does anything which would entitle a petition for a Bankruptcy Order to be presented.

6.10 (3) If the Buyer, being a company, does anything or fails to do anything which would entitle a petition for a winding up or an order of administration to be presented.

6.11 (4) If the Buyer, not being a company, becomes insolvent or is unable at any time any vehicle or premises owned or occupied by the Buyer or in the possession of the Buyer for the purposes of repossessing and recovering any such goods the property in which has remained in the Company under paragraph (2) above. The Company shall be entitled to recover the goods or to take any action against anyone liable in respect of damage caused to any vehicle or premises in such repossession and removal being damaged which was not reasonably practicable to do so.

6.12 (5) If the Buyer, not being a company, becomes insolvent or is unable at any time any vehicle or premises owned or occupied by the Buyer or in the possession of the Buyer shall be permitted to sell the goods to third parties in the normal course of business. In this respect the Buyer shall act in the capacity of the Companies commission

6.6.1 shall be held in trust for us in a manner which enables such proceeds to be provided as follows:

6.6.2 in addition to 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 Commission.

6.7 In the event that the Buyer shall sell any of the goods pursuant to clause (5) hereof, the Buyer shall forthwith inform the Company in writing of such sale and of the proceeds thereof. The Company shall be entitled to receive 6.8% of the net proceeds of the goods in the hands of 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 declared that such affixation shall not have the effect of passing property in the goods to the land or building. The Company shall be entitled to 6.8% of the net proceeds of the goods in the hands of the Buyer under paragraph (3) hereof, the goods are or become affixed to any land or building (whether or not owned by the Buyer), the Buyer shall:

6.8.1 ensure that the goods are capable of being removed without material injury to such land or building;

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

6.8.3 ensure that 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 damage or liability the Company may incur in connection with the removal of the goods from the land or building 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 ensure that the goods are capable of being removed without material injury to such land or building and to indemnify the Company in writing of the fact and circumstances of such loss, theft, damage or destruction;

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

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

7. THE COMPANY'S OBLIGATIONS TO THE BUYER. 7.1. THE COMPANY SHALL BE OBLIGED TO DELIVER TO THE BUYER, unless a separate agreement during a period of 24 months from the date of the purchase of the goods, a specified quantity of that product under 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:

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, life and death damage, negligence, abnormal working conditions, failure to follow the Company's instructions (whether oral or in writing), misuse or alteration or modification of the Goods.

7.2.3 The Company shall not be liable for any consequential damage(s) occurred to the Buyer, or the Buyer's customer's property, caused by failure of the Goods or the Company's equipment, which shall be claimed by the Buyer or the Buyer's customer's insurance party.

7.2.4 The above warranty does not extend to parts materials equipment not supplied by the Company, and the Company shall not be liable for the loss or benefit of any goods or guarantee as is given by the manufacturer to the Buyer.

7.3 The Company shall not make statement or representation or give any warranty to the Buyer in respect of any goods other than in the terms made or given by the Company to the Buyer 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 not be liable for any loss or damage or expenses incurred by the Company, and expenses incurred or suffered by the Company in respect of or arising out of any such statement, representation or warranty made or given by the Buyer in contravention of these Conditions.

7.4 The Company's liability to the Buyer for -
7.4.1 death or injury resulting from its own or that of its employees' agents' or subcontractors' negligence shall be limited to the sum of \$100,000;
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 to the sum of \$100,000;
7.4.3 subject as expressly provided in these Conditions all other warranties (including implied warranties) shall be subject to the same limitation as above, and the Company's liability shall be hereby excluded;
7.6 If the Company fails to deliver the Goods for any reason other than any cause specified in 7.4, the Buyer shall be entitled to reject the Goods. If the Buyer shall only be liable to the Buyer 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 over the contract price.
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 delivered shall be barred if the Buyer does not so examine the Goods. If the delivery is refused by the Buyer (the Buyer) be notified to the Company within 7 days from the date of delivery or (where the defect or failure was not apparent on reasonable inspection) within 14 days from the date of delivery. If the Buyer does not so notify the Company, the Buyer shall not be entitled to reject the Goods and the Company shall have no liability for such defect or failure. If the Buyer does not notify the Company within the time specified in accordance with the Contract (in no event shall the Buyer be entitled to reject the Goods on the basis of any defect or failure which is so slight that it would be unreasonable to require the Buyer to reject them) 7.8 The Buyer shall be entitled to reject any Goods which do not conform to the Contract. The Buyer may 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.

7.9 Where any valid claim 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 specifications is not made in accordance with these Conditions the Company shall not be entitled to repair or replace the Goods (or the part in question) free of charge or at the Company's sole discretion refund to the Buyer the Price (or a proportionate part thereof) and the Company shall bear no further liability to the Buyer.

7.10 Where failed Goods are returned to the Company and subsequently found to have no fault found or failed due to reason(s) outside these terms and conditions, the Company reserves the right to claim any subsequent costs entailed from the Buyer.

7.11 Without prejudice to the provisions of clauses 7.5, 7.6, 7.7, 7.9 and 7.10 the entire liability of the Buyer under or in connection with the Contract shall not exceed the Price.

7.12 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 performing or any failure to perform any of the obligations of the Contract, or any delay or failure to perform any of the obligations of the Contract, if such delay or failure is caused by any cause beyond the Company's reasonable control. Without limiting the foregoing, the following shall be regarded as causes beyond the Company's reasonable control:

7.21 act of god, explosion, flood, pest, fire, or inclement weather, fire or accident;

7.12.2 war or threat of war, sabotage, insurrection, civil disturbance or requisition; 7.12.3 acts, restrictions, regulations, by-laws, prohibitions or measures of any kind on the part of any Government, Parliament, authority or other public body;

7.12.4 riots or acts of sabotage, explosions 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 fire, flood, pest, sabotage, war, sabotage, labour, fuel, parts or machinery; 7.12.7 power failure, failure of tele-communications, failure or breakdown of plant, machinery or vehicles;

7.12.8 any other cause of any damage;

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

7.13 The Company shall not be liable for any loss or damage which is the responsibility of the Buyer to provide.

8.1.1 This clause applies if:

- 8.1.1.1 The Buyer makes any composition or voluntary arrangement with its creditors (being an individual or firm) becomes bankrupt or (being a company) becomes insolvent or is administered by a receiver or administrator or liquidator or administrator or goes into liquidation (otherwise than for the purposes of amalgamation or reconstruction) or a moratorium comes into force in respect of the Buyer (within the meaning of the Insolvency Act 1986); or
- 8.1.1.2 The Buyer is appointed or nominated as receiver or administrator or administrator or administrator is appointed of any of the property or assets of the Buyer; or
- 8.1.1.3 The Buyer ceases or threatens to cease to carry on business or
- 8.1.1.4 The Company reasonably apprehends that any of the events mentioned above will occur or has occurred.

8.1.2 If any of the events mentioned in 8.1.1.1 to 8.1.1.4 occur, then 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 have been delivered but not paid for the Price shall become 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 applicable health and safety legislation and any other 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 used in accordance with the intended or anticipated use of the Goods and that all such manuals instructions or documents remain with the Goods.

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 to a third party without the prior written consent of the Seller.

10.2 The Contract shall be entitled to assign its rights and obligations under the Contract and to sub-contract or otherwise delegate any of its obligations under the Contract to a third party without the prior written consent of the Seller.

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 the other party at its registered office or principal place of business or such other address as may be notified in writing to the other party. If no such address has been notified, then 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 otherwise on the next business day and if sent by post, 72 hours after posting.

10.4 Any dispute or claim between the parties arising out of or in connection with these Conditions shall be referred to arbitration. The arbitration shall be conducted in accordance with any provision of any subsequent branch of the same or any other provision.

10.5 If any provision of these Conditions is held by a Court or other competent authority to 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.

10.8 The parties hereby submit to the non-exclusive jurisdiction of the English courts

10.9 The Buyer shall indemnify the Company for all costs and damages, including attorneys' fees, suffered by the Company as a result of the Buyers actual or threatened breach of 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 at 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.rmcyinders.com/terms.

