

RMcylinders

Intercyl

INSTALLATION MANUAL

Issue 2016 - Rev 1

Tested to BS EN 12897 : 2006

FOR MORE INFORMATION, GO TO:

WWW.RMCYLINDERS.COM



Note: By installing this product you agree to be bound by our Conditions of Sale found within this manual and available for download via our website.

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PRODUCT SPECIFICATIONS

Introduction

Congratulations on your purchase, of this Unvented Hot Water Storage Cylinder. This UK manufactured product is made from Duplex stainless steel, which provides durability, resistance against corrosion, highly insulated with environmentally friendly foam, and then enclosed in a rust resistant white steel case.

The cylinder is available in several formats: Direct and Indirect Single Coil models 120-300, Solar Single Coil and Solar Twin Coil models 180-300.

The cylinder is approved to comply with:

The Building Regulations 2000 (England and Wales) Approved Document G.

The Building Regulations (Scotland) 2000.

United Kingdom Water Supply (Water Fittings) Regulations / Scottish Water Byelaws.

This is through the high quality of its materials and construction, and is supplied complete with all necessary safety and control devices needed to connect directly with the cold water mains supply.

Please ensure that you have understood this manual before starting the installation, and leave this guide with the user once the installation is complete.

Benchmark

The Benchmark scheme 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 and relevant electrical qualifications. 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 for more information.

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, building and water regulations
- To provide pre and post sales technical support
- To provide clear and concise warranty details to customers.

Component Checklist

Components(s)	Direct	Indirect	Solar Indirect	Solar Twin	Status
Manual / Benchmark	✓	✓	✓	✓	Loose
ERP Label	✓	✓	✓	✓	Loose
Inlet Control Set	✓	✓	✓	✓	Loose
T & P Valve	✓	✓	✓	✓	Fitted
T & P Insulation Cover	✓	✓	✓	✓	Loose
Tundish	✓	✓	✓	✓	Loose
Immersion Heater(s)	✓	✓	✓	✓	Fitted
Control / Limit Stat	✗	✓	✓	✓	Loose
Single Limit Stat	✗	✗	✓	✓	Loose
Two Port Zone Valve	✗	✓	✗	✓	Loose
Solar Cable Grommet	✗	✗	✓	✓	Loose

General Installation Requirements

The cylinder must be installed, commissioned and maintained by a competent installer holding their G3 unvented qualification, or being a member of a competent persons' scheme. Once the unit is installed and commissioned, the user must be given an explanation of the operation of the cylinder, and be given this installation manual for future reference.

Storage and Handling

Care must be taken when handling the product. Given the weight of the unit, use more than 1 person for carrying where appropriate, and be sure to comply with safe working practices and lifting techniques to avoid injury or product damage. The cylinder must be stored upright in its original packaging, on a secure, level surface within a dry and frost-free environment.

Siting the Unit

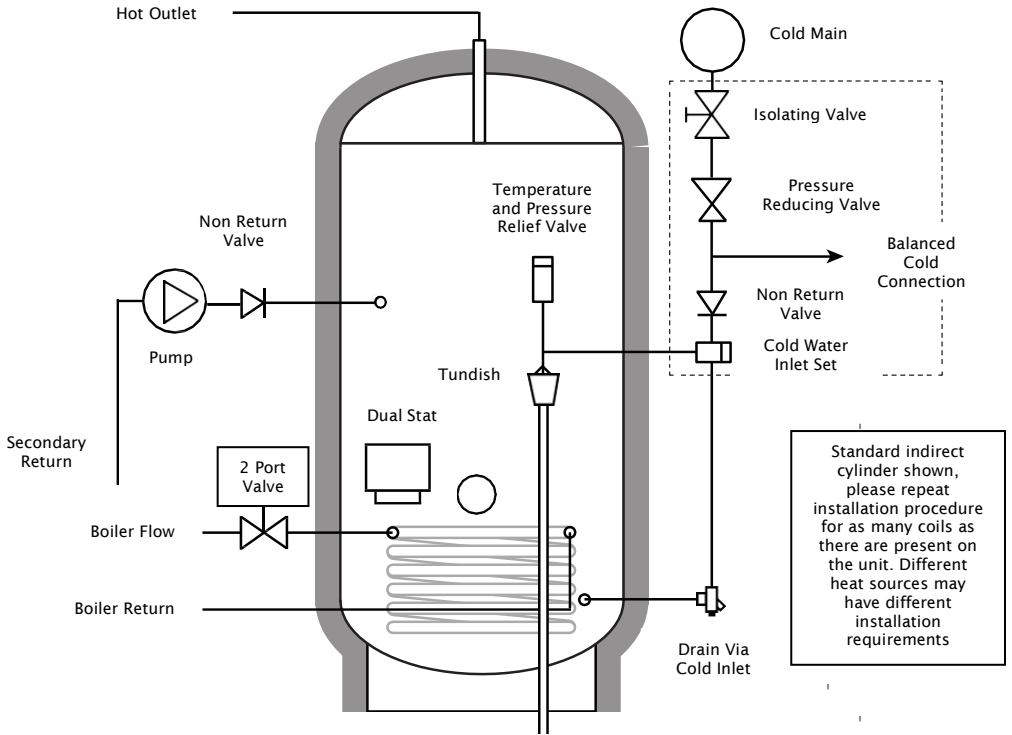
The cylinder must be installed vertically on a flat base, capable of supporting the weight of the cylinder when full. The minimum recommended cupboard size is 650mm square.

Nominal diameter of cylinder is 545mm.

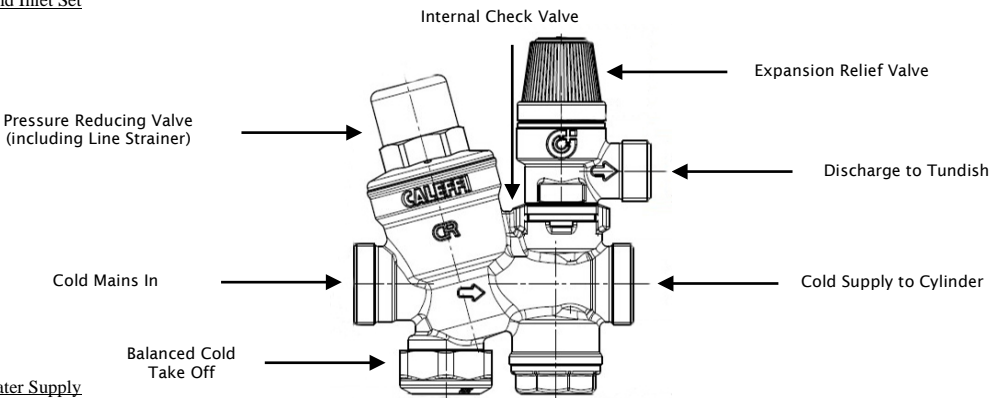
Areas that are subject to freezing should be avoided, however if the cylinder is outside of the heated area of the dwelling, such as a garage or outbuilding, ensure that frost protection is provided, and exposed pipework is insulated. Pipe lengths should be kept to a minimum to ensure minimal losses. For each metre an outlet is above the cylinder, the pressure will be reduced by 0.1 bar.

It is important to have room for access to the valves and controls of the cylinder, in order that they can be serviced and maintained. The immersion heaters are 375mm in length, and space should be provided for future removal and replacement.

Schematic



Cold Inlet Set



Water Supply

It is recommended that the maximum on-site water demand be assessed and the water supply be tested to ensure it can meet these requirements.

It is important to note that a high mains water pressure will not always guarantee high flow rates. Ensure a site pressure reading is taken under working conditions, as a high-pressure reading from static conditions may not be indicative of the working pressure. The minimum mains water supply requirements should be 0.15MPa (1.5 bar) working pressure, and a 20 litres per minute flow rate Where mains inlet pressures

may exceed 10 bar, then an additional upstream pressure reducing device should be fitted.

The mains supply pipe-work should be a minimum of 22mm, which may entail upgrading the existing 1/2" (15mm) cold mains pipe-work.

The water supply must be of a wholesome water quality, defined as Fluid Category 1 in the Water Supply Regulations 1999. In areas of hard water content greater than 200ppm, treatment for this should be installed.

Electric Supply

This appliance must be earthed. It is suitable for a 240 volt A.C. supply only. The electrical installation must be carried out by a competent electrician and be in accordance with the latest I.E.E. wiring regulations.

Ensure the electrical supply is isolated before making any connections to the cylinder.

GENERAL INSTALLATION AND COMMISSIONING

Cylinder Connections

The standard pipework connections on the cylinder are 22.0mm compression.

Should imperial 3/4" tube be used then imperial 3/4" olives are required for successful connection to the cylinder.

Cold Mains Pipework

The cold mains pipework should be a minimum of 22mm, through to the cylinder installation. Care should be taken not to run cold water pipes adjacent to hot water or heating pipework, thus minimising any heat transfer. Install an isolating valve (not supplied) to the cold mains pipework. Typically, a 22mm BS1010 stopcock or a quarter turn full-bore lever valve should be used, do not use a screwdriver slot, or other similar valves.

Make the connection to the cold feed of the cylinder, incorporating a drain valve.

Inlet Control Set

The inlet control set comprises of a 3.0bar pressure reducing valve, 8.0bar expansion relief valve, non return valve, in-line strainer, 22mm compression connections for cold entry, outlet to the cylinder and an outlet for a balanced cold supply. The inlet control must be positioned above the Temperature and Pressure Relief Valve (TPRV) that is mounted on the side of the cylinder. This position ensures the cylinder does not have to be drained in order to service the inlet control set. Ensure the directional flow arrow on the inlet control set follows the required flow of water. *See schematic diagram.*

A balanced cold supply is necessary if there are to be any showers, bidets, or monobloc taps in the installation. Connection to the balanced cold outlet will facilitate this requirement ensuring both hot and cold outlets are automatically balanced upon filling.

Expansion of Heated Water

The expansion of heated water in the cylinder is accommodated by an entrapment of air in the upper section of the cylinder. This is separated by a composite disc interface which rises and falls as the stored water heats and cools. The required levels of water and air are established automatically upon filling and require no specific commissioning. Servicing is required - *see service section*

In usage there may be occasions when heated hot water pressure may rise to approaching 8.0bar which may affect some terminal fittings. To overcome this, consideration should be given to installing a 3.0bar pressure control valve (*available from RM Cylinders*), to the hot outlet pipework of the system.

Hot Water Pipework

The main section of hot water distribution pipework should be installed in 22mm, which can be reduced to 15mm and 10mm dependent on the type of tap. The volume of the hot draw off pipework should be kept to a minimum so the transfer of the hot water to outlets is as quick as possible. Do not use monobloc mixer taps or showers if the balanced cold connection is not provided, as the unit will back pressurise and result in discharge. Ensure that the top of the vessel is accessible for servicing.

Secondary Circulation

Where secondary circulation is required a potable water circulator should be used in conjunction with a non-return check valve to prevent any backflow. Larger secondary circulation systems may require an external expansion vessel should the increased expansion requirement be greater than can be accommodated within the cylinder. A bespoke secondary return connection is supplied on 210, 250, 300 single coil indirect and twin coil indirect models. On smaller sizes, the return can be introduced into the cold feed pipe between the inlet control set and

the drain point. For electrical powered models where off peak tariffs are being used, then secondary circulation is not recommended.

All Indirect Coils

22mm primary coils of coil-in-coil design are fitted to all indirect models incorporating 22mm compression fittings for easy connection. These coils are suitable for both open vented and sealed system applications up to a maximum of 6.0bar and must be positively pumped. Ensure air release valves are used at high points such as the entry/exit points of the coil. Either connection may be used as the flow or return without compromising performance.

Maximum operating temperature of primary coils under normal circumstances is 85° C.

Ensure corrosion inhibitor compatible with stainless steel coils is used in the primary circuit.

Connection to a Boiler

Gas, oil and electric powered boilers may be used but must be under effective thermostatic control and employ high limit control. Uncontrolled heat sources must not be used.

The two port valve provided must be installed in the primary flow. The dual control/high limit thermostat provided fits onto the probe pocket positioned just above the coil connection and wired back to the two port valve to create both temperature control and primary isolation should the high temperature limit control be triggered - *See wiring diagrams*.

Connection too Solar

For solar, connect to the solar coil allowing for air removal. The temperature sensor controlling the solar input connects into the probe pocket directly above the solar coil connection using the cable grommet provided to ensure stable mounting. The single high limit thermostat installs into the probe pocket at high level on the cylinder and wires back to the solar pump to prevent further input when triggered.

When connecting a twin coil cylinder to a boiler and solar thermal system the upper coil connects to the boiler and the lower to the solar system.

Where a twin coil cylinder is being heated by two boilers, the upper coil should utilise the dual control/high limit thermostat as described in Connection to a Boiler section. For connection to the lower coil you will require a further two port valve and a single control thermostat (*both available from RM Cylinders*) to ensure a legal installation. The single control stat inserts into the probe pocket directly above the lower coil and the single high limit stat into the probe pocket at upper level on the cylinder body. Wired together and back to the two port valve connected into the primary flow this will provide temperature control and high temperature isolation of the primary heat source.

Wiring

A competent electrician in accordance with the latest I.E.E. wiring regulations should complete any electrical wiring required.

Typical Wiring – S Plan, 1 zone

Typical Wiring – S Plan, 2 zone

Typical Wiring – Y Plan

See Wiring Plans section (Pages 18 - 19).

Immersion Heater

As a requirement of the Building Regulations, the immersion heaters are fitted with a non-self setting thermal cut-out, in addition to the normal control thermostat. The immersion heaters have a 1¼" BSP thread. They are of a low noise Incoloy construction and rated at 3kW at 240V. Replacement immersion heaters should be purchased via ourselves otherwise your guarantee may be affected.

The 'O' ring on the head of the immersion heater should be correctly positioned and lubricated before fitting. Screw in hand-tight until almost sealed, and then gently tighten, as the 'O' rings will seal easily. The electrical supply to each immersion heater) must be fused at 13A via a double pole isolating switch to BS 3456. The 3kW immersion heaters must be wired in 2.5mm heat resistant cable – failure to comply with this can cause nuisance tripping and we will be unable to support your installation until this has been addressed.

Do not operate the immersion heaters until the unit is full of water. If any sterilization liquid is in the cylinder do not operate the immersion heaters as this will cause premature failure.

In commercial or heavy duty installations, where constant usage and reheating is required, or where an external programmer designed for immersion heaters is not present, Titanium immersion heaters must be fitted in order to comply with the warranty.

Insulation of the Temperature and Pressure Relief Valve

Components for insulating the TPRV are supplied in order to retain heat and energy. Installation instructions are provided with the insulation cover.

Discharge Pipework and Tundish

Note: This information is not exhaustive, and if in doubt, seek advice. Full details of Building Regulation G3, is available 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. Water should only be discharged when there is a fault with the system.

The discharge water must not collect in this pipe-work and flow freely to the tundish. This tundish should be vertically mounted in a visible location in the same space as the hot water storage system, fitted as close as possible with 600mm of the safety device e.g. the temperature relief valve. The discharge pipework from this tundish must be routed in accordance with part G3 of the Building Regulations.

This discharge should be visible at the tundish. For people with impaired vision or mobility, consider installing a safety device to alert them to when discharge takes place. For more information in this situation see the building regulations.

- a) The discharge pipe (D2) from the Tundish should have a vertical section of pipe 300mm long below the Tundish before any elbows or bends in the pipework.
- b) This pipe should then be installed with a continuous fall of at least 1 in 200 thereafter.
- c) The pipe must 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 18 and 27m at least 3 times 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 the design installation, testing and maintenance of services supplying water for domestic use within buildings and their curtilages.

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:

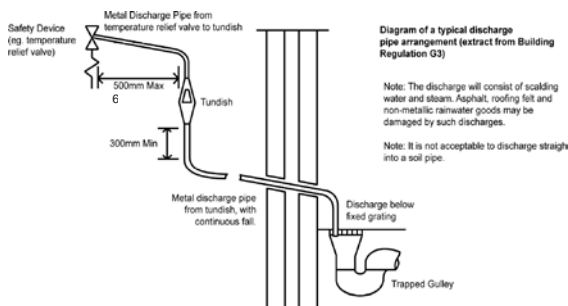
1. To a trapped gully with the outlet below a fixed grating and above water seal.
2. Downward discharges to low level, within 100mm, above external surfaces such as a car park, hard standing, grassed area with a protective wire cage to prevent contact but retaining visibility of discharge.
3. Discharge at high level into a metal hopper and metal downpipe with the termination point clearly visible or onto a 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 discharges 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 (PEX) complying with 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 pipe.
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

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.

Schematic



Commissioning - filling the system

Check all connections for water tightness including factory made connections such as the temperature and pressure relief valve, as these may have been loosened during transit.

The hot tap furthest away from the cylinder should be opened before filling the system to purge air and flush any disturbed particles

The system should be flushed before use. The remaining taps should be opened in turn to purge air from the system before turning on the electrical supply.

For 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 pre-set at 60°C. Turning fully to + sets to approximately 65°C.

For Indirect Units: Ensure the lever on the two port valve is set to the filling position and use the boiler manufacturer's commissioning instructions to fill the primary circuit. When full, release the lever. Switch the programmer to Domestic Hot Water (DHW) and allow the unit to start to heat. It is usual to set the thermostat to 60°C.

Storage Temperature

A storage temperature of 60°C is normal for both direct and indirect units. In hard water areas, consider reducing this to 55-60°C.

Safety Valve Check

If water is being released from either the expansion relief or the temperature and pressure relief valve during heat up, then this is indicative of a problem that needs rectifying. Both valves should be opened slowly one at a time, and then together, allowing as much water to flow through the tundish. Check that the discharge pipework is free from debris and the discharge can flow freely, without spillage over the tundish. Check that the valves reset correctly when released.

Draining the Cylinder

Isolate from the electric 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, as this will ensure an efficient siphon 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.

Note: Water drained off may be hot.

SERVICE AND MAINTENANCE

Servicing must be carried out annually and should only be carried out by competent installers. Any spare parts used must be purchased from RM Cylinders. Never bypass any safety devices or operate the unit without these being fully operational

Your guarantee may be void without proof of annual servicing via the Service record within this manual. The installer upon installation of the unit must also complete the accompanying commissioning certificate.

Annual Servicing Requirements

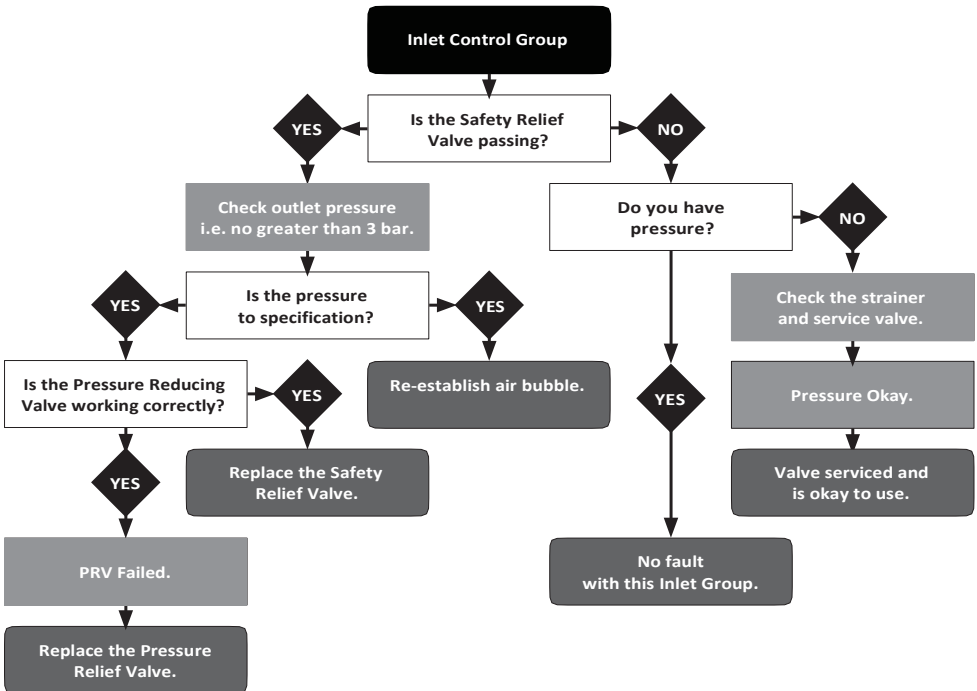
A competent installer should carry out the following checks on an annual basis, ideally at the same time as the annual boiler service.

1. The expansion relief valve on the inlet control set should be eased open allowing water to flow for a minimum of 5 seconds. The valve should then be closed making sure it resets correctly. Repeat this procedure with the pressure/temperature relief valve. Ensure that the discharge pipework is allowing the water to flow freely, and clear any blockages if this is not the case.
2. Ensure that all immersion heaters fitted are working correctly and are controlling the water temperature between 55°C and 60°C.
3. This cylinder has no external expansion vessel. Expansion of heated water is accommodated by an entrapment of air in the upper section of the cylinder separated by a composite disc interface which rises and falls as the stored water heats and cools. At an annual service, it is necessary to ensure the level of the disc is correct by the following steps.
 - a) Isolate the cold mains supply to the cylinder.
 - b) Turn on a hot tap outlet
 - c) Open the Temperature and Pressure Relief Valve until water stops flowing from both the Relief Valve and the hot tap.
 - d) Close both the Relief Valve and the hot tap.
 - e) Turn the incoming cold mains on and allow the cylinder to fill
 - f) Re-open the hot tap until water flows and then close
 - g) The correct level for the interface disc will then have been re-established.
4. Remove the head on the inlet control set by unscrewing it, and clean the mesh filter within
5. The benchmark service record supplied within this manual should be updated at each service.

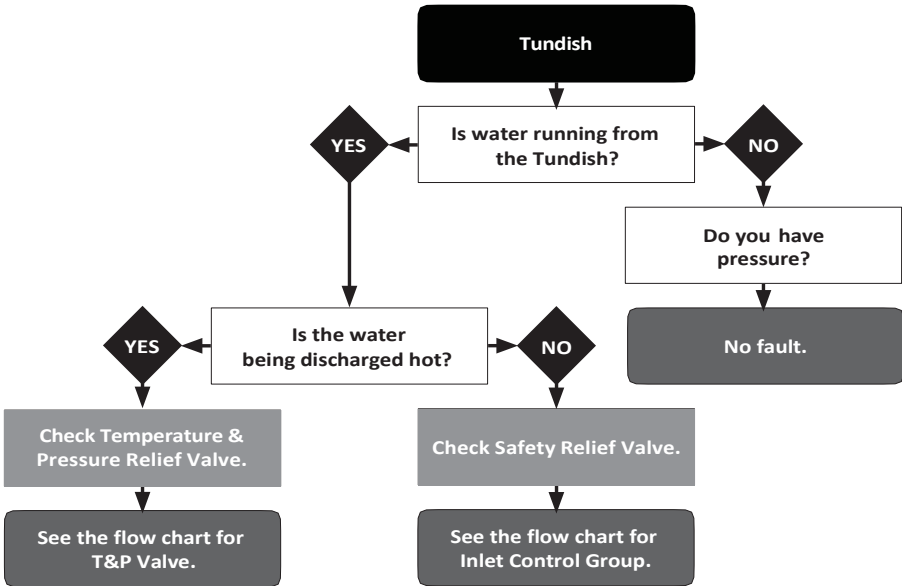
FAULT FINDING

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 mixertype outlets are served by a balanced cold service. Where not re-pipe or install bespoke pressure reducing valve to offending outlet.
Expansion Valve operates when cylinder is heated.	Baffle requires adjustment.	Follow process to re-establish the bubble.
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.
	Immersion heater failure.	Follow fault finding information for Immersion Heater
No hot water available.	Boiler failure.	Check operation of the boiler and its controls.

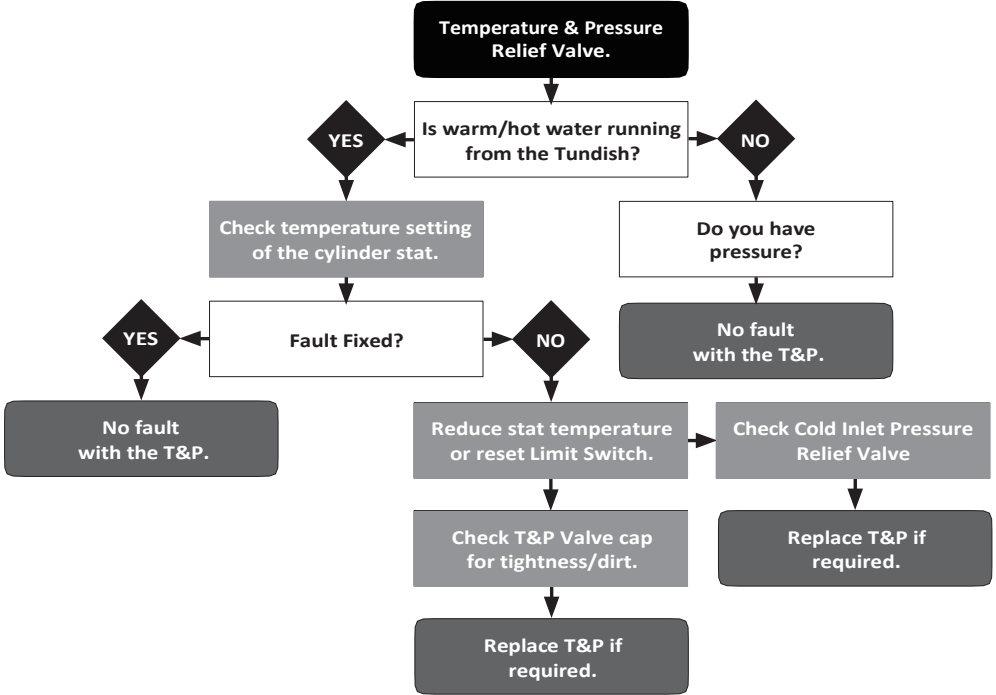
INLET CONTROL GROUP - FAULT FINDING



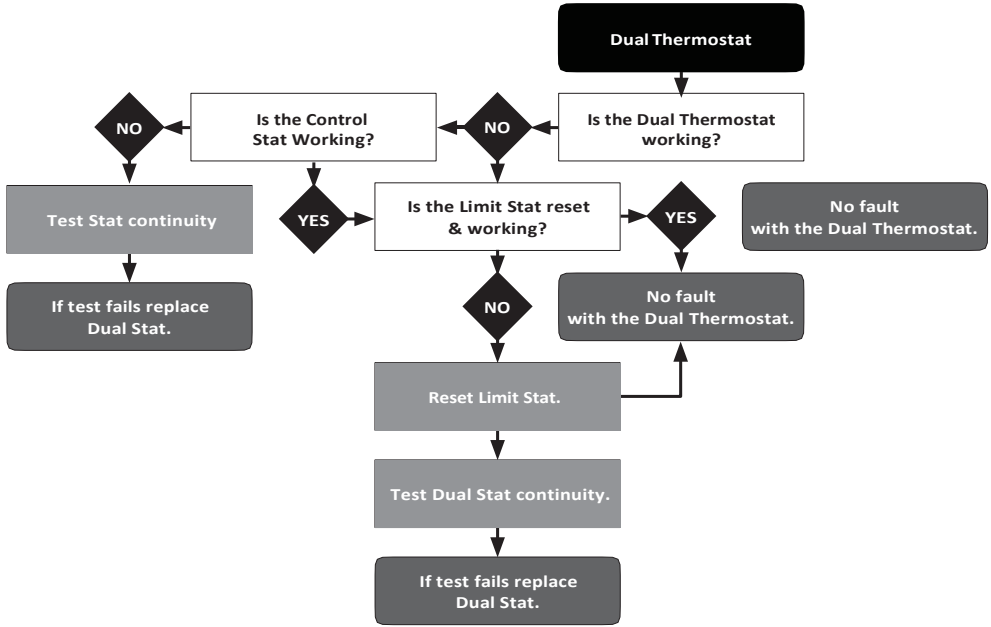
TUNDISH - FAULT FINDING



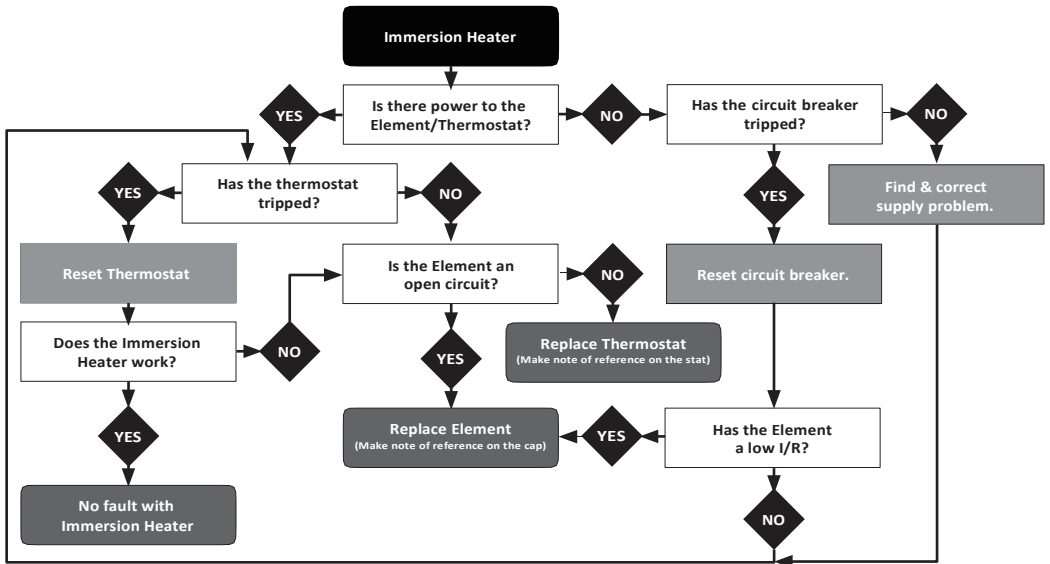
T & P VALVE - FAULT FINDING



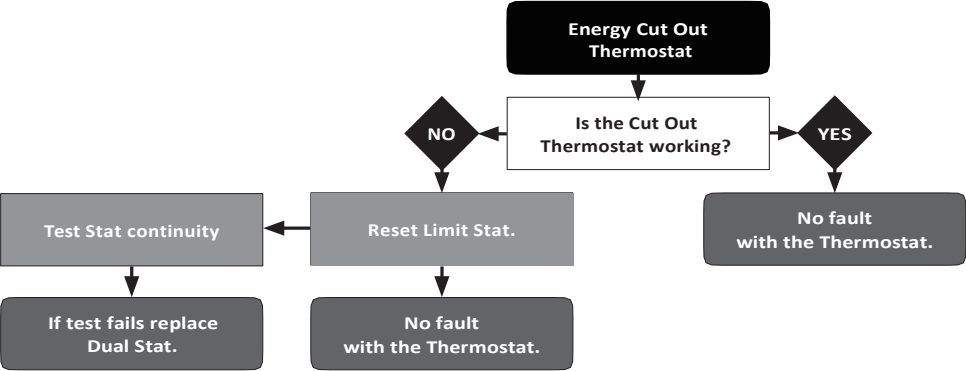
DUAL THERMOSTAT - FAULT FINDING



IMMERSION HEATER - FAULT FINDING



ENERGY CUT OUT - FAULT FINDING



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 _____

Signature _____

SERVICE 2 Date _____
Engineer Name _____
Company Name _____
Telephone _____
Number _____

Signature _____

SERVICE 3 Date _____
Engineer Name _____
Company Name _____
Telephone _____
Number _____

Signature _____

SERVICE 4 Date _____
Engineer Name _____
Company Name _____
Telephone _____
Number _____

Signature _____

SERVICE 5 Date _____
Engineer Name _____
Company Name _____
Telephone _____
Number _____

Signature _____

SERVICE 6 Date _____
Engineer Name _____
Company Name _____
Telephone _____
Number _____

Signature _____

SERVICE 7 Date _____
Engineer Name _____
Company Name _____
Telephone _____
Number _____

Signature _____

SERVICE 8 Date _____
Engineer Name _____
Company Name _____
Telephone _____
Number _____

Signature _____

SERVICE 9 Date _____
Engineer Name _____
Company Name _____
Telephone _____
Number _____

Signature _____

SERVICE 10 _____
Date _____
Engineer Name _____
Company Name _____
Telephone _____

Signature _____

USER GUIDE AND CUSTOMER SERVICE

Guarantee

The stainless steel vessel carries a 25 year guarantee against faulty materials or manufacturing, provided that:

1. It has been correctly installed as per this document and all the relevant standards, regulations and codes of practice in force at the time
2. It has not been modified in any way, other than by RM Cylinders
3. It has not been misused, tampered with, or subjected to neglect
4. It has only been used for the storage of potable water
5. It has not been subject to frost damage
6. The unit has been serviced annually
7. The benchmark service record has been filled in after each annual service
8. The guarantee period starts from the date of purchase and no registration is required
9. The extended guarantee is not transferable and rests with the original householder
10. The system is fed from a public mains water supply
11. Store temperatures do not exceed 65°C
12. Installations are made only in the UK and Republic of Ireland.
13. The water supply does not have a chloride content greater than 250ppm
14. Units are not installed with uncontrollable heat sources (e.g. wood burning stoves)
15. For commercial or heavy duty installations where constant usage and reheating is required, titanium immersion heaters must be fitted to comply with the warranty

Exclusions

16. The effect of scale build up on the unit or its components
17. Any labour charges associated with replacing the unit or its parts
18. Any consequential losses caused by the failure or malfunction of the unit.

Note: 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.

Claims

On the rare occasion that a fault occurs, RM will only consider sensible broken down claims submitted in full at the time when the faulty part/unit is returned.

We will not cover claims for excessive travelling time where an installer has chosen to accept a job more than 30 miles from their base of operations.

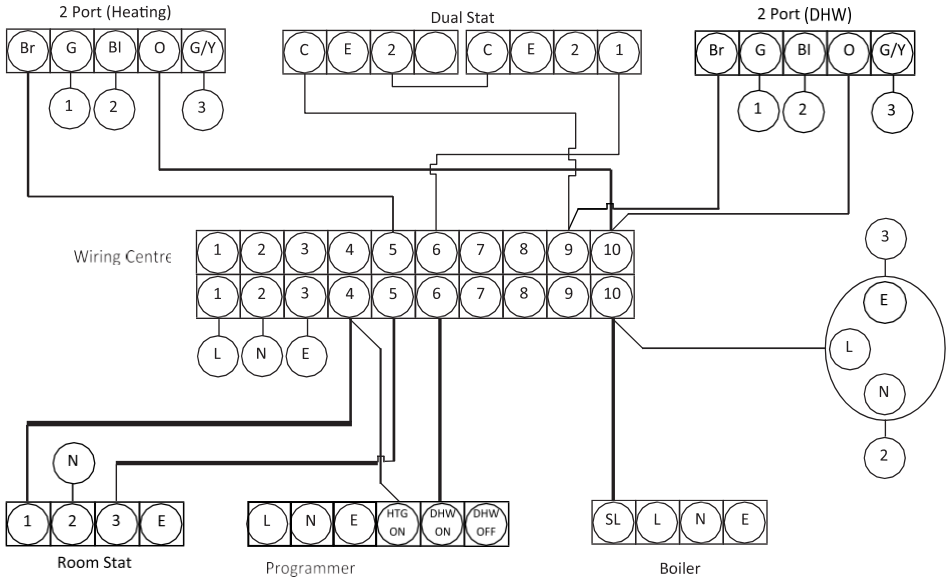
Costs cannot be recovered for the removal of a faulty unit from a difficult to reach area, or an area where the cylinder access has been restricted. This would be in contradiction with our guidelines where a unit should always be allowed suitable provision for replacement. Claims will not be accepted for units that have not been installed in accordance with this manual.

Customer Service and Claims Contact Information

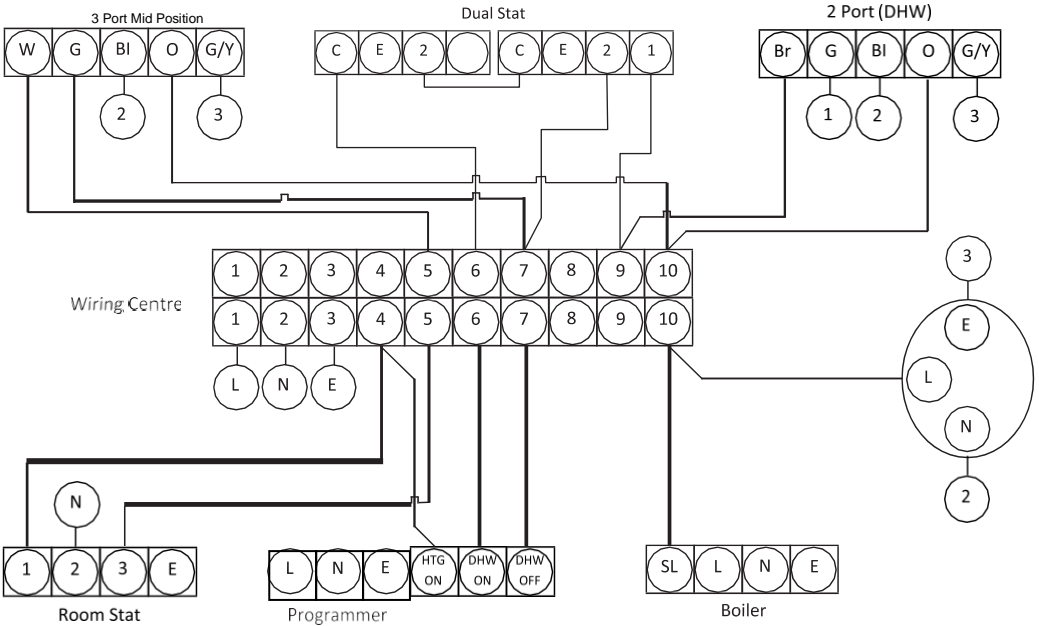
RM Cylinders
4 Valencia Park
Gilcar Way
Wakefield Europort
WF10 5QS

01924 224282

TYPICAL WIRING - S PLAN, 1 ZONE

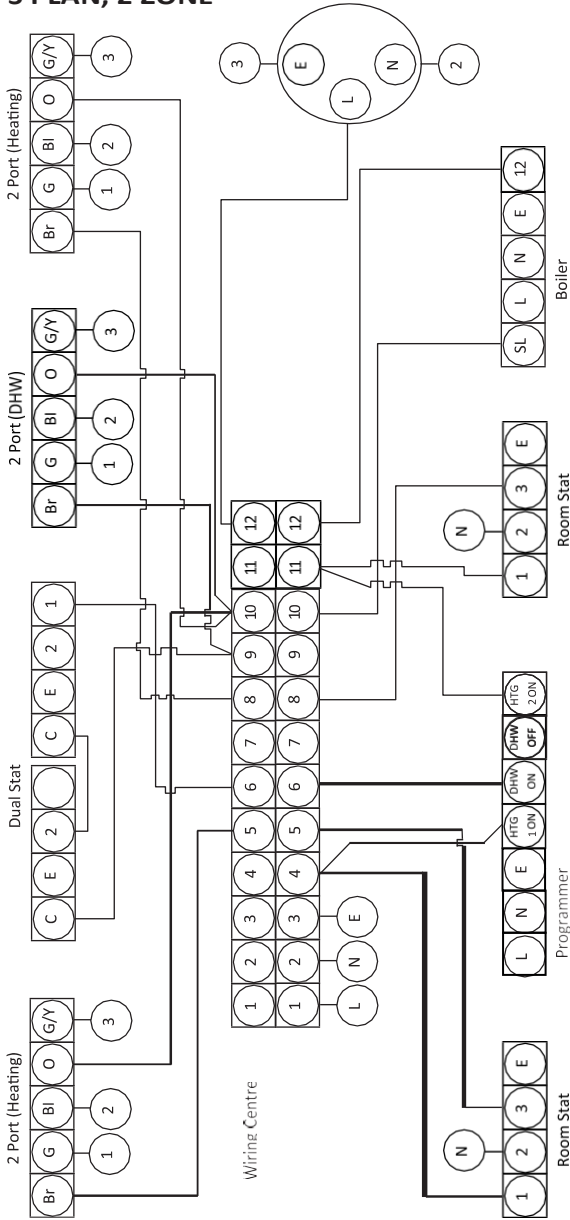


TYPICAL WIRING - Y PLAN



COLOUR CODES W = WHITE G = GREY BL = BLUE G/Y = GREEN / YELLOW L = LIVE N = NEUTRAL C = COMMON SL = SWITCHED
LIVE E = EARTH

TYPICAL WIRING - S PLAN, 2 ZONE



COLOUR CODES W = WHITE G = GREY BL = BLUE G/Y = GREEN / YELLOW L = LIVE N = NEUTRAL C = COMMON SL = SWITCHED
 LIVE E = EARTH

CONDITIONS OF SALE

1. DEFINITIONS

"Buyer" means the person or persons who accepts a quotation of the Company for the sale of the Goods or whose order for Goods is accepted by the Company
"Company" means RML Cylinders.
"Conditions" means the terms and conditions of sale set out in this document and any special or additional 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 the Conditions of Sale.
"Invoice" means the invoice or other document containing the details of the Goods.
"Net price" means the price for the Goods including transport and insurance (if any).
1.1 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.
1.2 Where in these Conditions a reference is 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 provided by the Company and accepted by the Buyer); or
2.1.2 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, 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.
2.2 The Conditions shall apply to all sales 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 advice or recommendation which is not so confirmed.
2.4 The Buyer acknowledges and agrees that in the event of 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 The Company's drawings, particulars or weights and dimensions 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, designs and dimensions without notice.
2.7 For the avoidance of doubt nothing in these Conditions or any Contract shall confer on any third party any benefit nor the right to enforce any part of these Conditions or any Contract whereas pursuant to the Contracts (Rights of Third Parties) Act 1999 or otherwise.

3. THE PRICE AND PAYMENT

3.1 The price shall be either:
3.1.1 The Company's quoted price which shall only be valid for 30 days from its date after which time the Price may be altered by the Company and shall be subject to the Company requesting; or
3.1.2 Where no price has been quoted the Price listed in the then current price list of the Company or to the Company's quotation or to the Company's quotation or to the Company or otherwise agreed in writing between the Buyer and the Company, all prices are given by the Company 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 installment 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 Save as otherwise agreed in writing, payment of the Price (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 right or remedy available to the Company the Company shall be entitled to:
3.6.1 cancel the Contract or suspend any further deliveries to the Buyer;
3.6.2 appropriate any payment made by the Buyer to such of the Goods (or the Goods sold under other contracts between the Buyer and the Company) as the Company may think fit (notwithstanding any purported appropriation by the Buyer) and
3.6.3 charge the Buyer interest (both before and after any judgement) on the amount unpaid at the rate of 8% per cent annum above Barclays Bank PLC base rate for the period until the amount is paid in full (a part of a month being treated as a full month for the purpose of calculating interest).

4. THE GOODS

4.1 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 not limited to the use to which the Goods will be put and any special application) and for ensuring that the Buyer is giving the Company any necessary information relating to the Goods within a sufficient time to enable the Company to perform the Contract in accordance with its terms.
4.3 The Buyer shall be responsible to the Company for applying to the Goods by the Company in accordance with a specification submitted by the Buyer the Buyer shall indemnify the Company against all losses damages costs, claims, demands, liabilities and expenses awarded against or incurred by the Company in connection with or paid or incurred in respect of the Company's settlement of any claim for infringement of any patent copyright design trade mark or other intellectual or intellectual 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 Buyer may be cancelled by the Buyer except with the agreement in writing of the Company and on terms that any deposit paid shall be repaid and any order or any process shall be applied to the Goods in loss (including loss of profit) costs (including the cost of all labour and materials used) damages charges and expenses incurred by the Company or carried out any work in relation to the Goods or the Company's settlement of any claim for infringement of any patent copyright design trade mark or other intellectual or intellectual 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.

5. DELIVERY OF GOODS

5.1 Unless otherwise agreed in writing the Company shall deliver the Goods to the address specified in the Company's quotation 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 offloading the Goods at the delivery address and shall advise the Company of any local or internal rules, bylaws or rules relating to parking or loading or unloading 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 The date and time 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 by 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 giving reasonable notice to the Buyer.

5.5 Where the Goods are to be delivered in installments each delivery shall constitute a separate contract and failure by the Company to deliver any one or more of the installments in accordance with these Conditions or any claim by the Buyer in respect of any one or more installments 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 (including those stated 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 transport, packaging and insurance for re-delivery of the Goods; or
5.6.2 sell the Goods at the best price readily obtainable and (after deducting all reasonable costs) retain the proceeds of any sale for the Buyer's excess over 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 from an authorized officer of the Company and such return shall be subject to payment by 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 in view of the goods, such insurance to be effective from the time of delivery until property in the goods has been transferred to the Buyer.
6.2 Property in the goods supplied hereunder will pass to the Buyer when full payment has been made by the Buyer to the Company for:
6.2.1 the Goods if the Goods are delivered to the Buyer's premises, storage and transport, packaging and insurance for re-delivery of the Goods; or
6.2.2 all other goods the subject of any other 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.

6.3 The Buyer shall be responsible for the Buyer's non-compliance with paragraph (3) above.

6.3.1 The Buyer shall hold the goods in a fiduciary capacity for us and shall store the same in secure premises under the Buyer's possession and in a manner which enables them to be identified as our goods.

6.3.2 The Buyer shall immediately return the goods to the Company should the Company's authorized representative so request. All the necessary incidental costs of such return shall be for the Buyer's account.

6.4 The Buyer's right to possess the goods shall cease forthwith upon 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 clause 3 above;
- 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 to be presented for the winding up of the Buyer under any law for the time being in force;
- 6.4.3 if the Buyer, being a company, does anything 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 or to apply for an administration order;
- 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 purposes of inspecting and recovering any such goods the property in which has remained 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 vehicle or premises in such representation and removal being engaged which it 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 this respect the Buyer shall act in the capacity of the Company's commission agent and the proceeds of such sale:-
6.6.1 shall be held in trust for us in a manner which enables such proceeds to be identified as such; and
6.6.2 shall not be used with other monies nor paid into an overdrawn 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 forthwith inform the Company in writing of such sale and of the identity and address of the third party to whom the goods have been sold.
6.8 The Buyer shall be responsible for the goods passing by paragraph (3) above the goods are or become affected by any land or building owned by the Buyer it is hereby agreed and declared that such affliction shall not have the effect of passing in respect of the Goods to the Buyer or any other party in the goods shall pass to the Buyer under paragraph (3) hereof, the goods are or become affected by 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 forthwith inform the Company in writing of such affliction and of the address of the land or building concerned. The Buyer warrants to repair and make good any damage caused by the affliction of the goods to their or their removal from any land or building and to indemnify the Company against all loss damage or liability the Company may incur or be exposed to as a result of such affliction.
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 be responsible for the goods in 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.

7. WARRANTIES AND LIABILITY INCLUDING THE UK ONLY

7.1 Subject to the following provisions, the Company warrants that the Goods 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 installation instructions 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 be under 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 be under no liability in respect of any defect arising from fair wear and tear or from 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 be under no liability in respect of consequential (including) occurred to 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 Buyer's customer's insurance 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 benefit of any such warranty or guarantee as is given by the manufacturer to the Buyer.
7.3 The Buyer shall not make any statement or representation or give any warranty to any third party in respect of any of the 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 confer any such warranty or representation or give any such warranty to the Buyer's customer or indemnify the Company against all losses, damages, costs, claims, demands, liabilities 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 this clause.

7.4 The Company's liability to the Buyer for:
7.4.1 direct 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 implied by Section 2 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 The Company shall be liable to the Buyer as a result of any breach of the obligations implied by the Company's reasonable control or by reason of the Company's fault 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 material) of similar goods to replace those not delivered to the Buyer for 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 the failure of the goods to conform to the specification of the Buyer or not being delivered by 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 a reasonable time after discovery of the defect or failure if delivery is not refused and the Buyer does not notify the Company 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 any defect or failure which is so slight that it would be unreasonable for the Buyer to reject them.
7.8 The Company shall be entitled to examine any Goods which are the subject of any claim by the Buyer and to inspect the 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 purposes of the Contract.

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 specification is notified to the Company in accordance with these Conditions the Company shall be entitled to reject the Goods or to replace them or to repair them or to offer the Buyer a price or other discretion (refund to the Buyer the Price (or a proportionate part of the Price) but the Company shall have no further liability to the Buyer.
7.10 The Company shall be liable to the Buyer and the Buyer and subsequently found to have no fault found or failed due to reasons) under these terms and conditions, the Company reserves the right to claim any subsequent costs, claims, demands, liabilities and expenses awarded against or incurred by the Buyer for the Price as if the Goods had been delivered in accordance with the Contract and not subject 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 of the Goods.

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 Company's obligations in relation to the Goods if the defect 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 Company's reasonable control:
7.12.1 act of God or other natural causes which it was not reasonably practicable to avoid;
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, 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 failures, failure of tele-communications lines, failure or breakdown of plant, machinery or vehicles;
7.12.8 theft or malicious damage;
7.12.9 any other cause whatsoever of suppliers or sub-contractors of the Company.

7.12.10 incompleteness or inaccuracy of any technical information which it is reasonable to expect 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 creditors (being 8.1.2 individual or firm) becomes bankrupt (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 a moratorium comes into force in respect of the Buyer (within the meaning of the Insolvency Act 1986); or
8.1.2 an encumbrance takes possession of 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 becomes insolvent or unable to pay its debts as they fall due; 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 the clause in relation to the Goods if the defect or failure was due to any cause beyond the Company's reasonable control without limiting the foregoing, the Company shall be entitled to stop the Buyer 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 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 used without risk to health and safety when used in the manner intended. The Goods shall be maintained by a person at work and that all such manuals instructions or documents remain with the Goods.

10. FORCE MAJEURE

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 written consent of the Company.
10.2 In the event that the Buyer's rights and obligations under the Contract and to 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 other party at the address or principal place of business or such other address as may be at the relevant time have 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 it is delivered to the principal place of business or such other address on or after the next business day and is sent by post, 72 hours after posting.

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 10.5 If the Contract is frustrated or discharged by a Court or other competent authority it 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 shall be deemed to be governed by the law of the jurisdiction in which the parties hereby submit to the non-exclusive jurisdiction of the English courts.

10.7 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 with information as to the proper and safe use of the Goods if the Buyer provides the Company with the information as to the Company's instructions or other information relating to the use of the Goods.
Specific product warranties terms are available on request.

Terms & Conditions may change without prior notice being given, for up to date Terms please visit www.rmlcylinders.com/terms

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