



GENERAL OPERATING INSTRUCTIONS

FOR

PHOENIX HOBBY ELECTRIC KILN

**READ CAREFULLY BEFORE
SITING AND OPERATING THE KILN**

DRYING OUT FIRING

The following recommended drying out firing MUST BE UNDERTAKEN before the kiln is fired for the first time with payload.

- (A) Top Damper / Bung(s) Open.
 - (1) Ambient temperature to 150°C not faster than 50°C centigrade per hour.
 - (2) On reaching 150°C hold this temperature for 45 minutes.
 - (3) After holding period of 150°C increase the rate of temperature rise to 80°C centigrade per hour until the kiln reaches 650°C.
- (B) Close Top Damper / Bung (s) at 650°C.
 - (4) Increase the rate of temperature rise to 125°C centigrade per hour until the kiln reaches 1050° centigrade (This is to oxidize the heating elements).
 - (5) Hold 1050° centigrade for 30 minutes.
 - (6) End programme and allow the kiln to cool to ambient temperature.

When the kiln has fully cooled the kiln will be ready for use.

MAXIMUM HEATING / COOLING RATES

The refractory insulation brick manufacturers recommend that the insulation bricks in the kiln should not be subjected to heating / cooling rates in excess of 200°C per hour. At rates of heating / cooling above this the brickwork will be subject to loss of integrity of the lining resulting in early failure of the kilns lining.

GUARANTEE

ALL kilns are covered by our normal terms of guarantee for **12 months against defective parts and/or faulty workmanship subject to exclusions as listed below:-**

1. Kilns damaged or malfunctioning due to incorrect electrical installation.
2. Kilns allowed to exceed maximum temperature stated on the date plate for whatever reason.
3. Replacement of insulation, elements, furniture and/or ware being distorted/damaged resulting from the kiln being allowed to exceed the intended maturing temperature of the ware being fired.
4. Kilns subjected to abuse, neglect, transit damage or improper storage.
5. Kilns used for reduction or salt glaze firings.
6. Kilns used for actually drying ware prior to firing.
7. The firing of the kiln is only one part of a specific process in producing the final ware. As such Kilns and Furnaces Ltd can not be held responsible whatsoever for faults that are caused by the end users production process. It is assumed that end user has furnished themselves with sufficient knowledge and skill to undertake their production process.
8. Each kiln in the Phoenix range has been designed to fire with a load (including kiln furniture) of around 320 gram per litre (20lb. /Cu Ft.). If the actual load being fired significantly deviates either above or below this amount the overall kiln performance and heat distribution will be affected. In case of over loading, the kiln may not be able to achieve the firing cycle top temperature.
9. The Phoenix kiln is designed for hobby use only and is not to be used for commercial production purposes.
10. Parts subject to normal wear and tear e.g. elements, door seals, gaskets, brickwork.

KILNS AND FURNACES LTD will repair or replace any parts which become defective under normal and proper use during the specified period, providing the kiln has not been subjected to misuse or the listed exclusions.

KILNS AND FURNACES LTD will furnish and install replacement parts at the factory and after factory examination of the defect, replacements, complete with installation instructions will be shipped post-paid to owner.

ATTENTION

This kiln complies with the EU Directives concerning Low Voltage Equipment.

All replacement parts must be purchased from Kilns and Furnaces Ltd. Fitting of any unauthorised replacement parts may invalidate the Declaration of Conformity.

GENERAL INSTRUCTIONS

INTRODUCTION

Your Phoenix kiln has arrived, we hope in safe and sound condition. Before unpacking, examine the container to ensure the damage has not occurred.

It is very important to notify Suppliers and haulier immediately in writing, if there are obvious signs of transit disturbance. No consideration can be given to a claim for apparent transit damage if this procedure is not strictly adhered to.

UNPACKING

Your Phoenix kiln always needs to be handled carefully. The outside surfaces will score quite easily and the insulation material used in the side walls will chip off if not treated with utmost care, so be gentle when unpacking (and using).

With all packing and components removed check to ensure that the elements have not dropped away from the sides. If so, carefully replace them into position clipping the ends neatly into the purpose cut vertical slots.

ACCESSORIES

Included in your kiln will be the following:-

1. A control system.
2. An instruction manual.
3. Furniture set.
4. Ceramic plugs.

SITING

Some important considerations apply:-

- A. Ensure that the floor is hard and heat resistant, i.e. concrete, clay or ceramic tiles. **DO NOT** allow the kiln to be placed on a vinyl tile, wooden or carpeted floor.

- B. Site the kiln at least 12" (305mm) away from vertical surfaces always ensuring that no combustible material is in the immediate vicinity.
- C. Ensure that the room has continual air circulation either by fresh air or via an extractor type fan.
- D. Locate the kiln near to the power point. A 13 amp fused domestic plug will be suitable for the 3kW Phoenix 38 kiln.
- E. Under no circumstances must the kiln be used with an extension lead or any other type of temporary electrical connection.
- F. Connect the controller plug to the control socket at the rear of the kiln.

IMPORTANT

1. ENSURE THAT THE CABLE LEADING FROM THE KILN TO THE MAINS SUPPLY IS ALWAYS KEPT WELL AWAY FROM THE RADIATING SURFACES OF THE KILN.
2. THE KILN WILL NOW BE READY TO SWITCH ON BUT BEFORE DOING SO, FULLY READ THE KILNS INSTRUCTIONS IN THE FOLLOWING PARAGRAPHS.
3. FOR THE FIRST 4 OR 5 FIRINGS IT IS ESSENTIAL THAT THE FIRING IS FULLY SUPERVISED UNTIL THE OPERATOR BECOMES FAMILIAR WITH THE KILN AND ITS CONTROL SYSTEM.
4. ON KILNS SUPPLIED WITH A SEPARATE CONTROLLER, ENSURE THAT BOTH THE CONTROLLER AND THE CONTROLLER CABLE ARE KEPT WELL AWAY FROM THE KILN OR HEAT RADIATED FROM THE KILN.

SETTING UP KILN FOR 'DRYING OUT' FIRING

To enable the operator to familiarise him/herself with the characteristics of firing the kiln, it is essential to have a trial firing which will also act as the 'drying out' firing. For this purpose, the kiln furniture should be stacked in the kiln, with prop positions forming a triangle and if necessary the shelves (batts) can be placed with valueless ware to simulate a proper firing. Whilst placing the bottom shelf be careful not to disturb the thermocouple ceramic sheath protruding into the kiln.

HOW TO LOAD YOUR KILN – GENERAL INSTRUCTIONS

1. Bear in mind that the actual heating elements can be much hotter than the rest of the firing chamber therefore, when placing pieces do not allow them to be placed too close to the elements otherwise scorching or dunting could occur.
2. Ensure that your green ware is completely dry- allow at least two days in a warm atmosphere. Wet ware can explode causing damage and frustration and is also detrimental to the kiln itself.
3. When loading/unloading be careful not to disturb the sensing thermocouple. The sensor element is protected by a ceramic sheath, which is subject to breakage if maltreated.
4. Distribute the ware equally over each batt i.e. try not to overfill any particular area or leave large spaces.
5. Keep all taller pieces together likewise all shorter pieces, so as to create two or three layers matching props available i.e. 50mm apart or 100mm apart etc. Naturally, it is not necessary to make use of props or batts if very tall pieces are to be fired utilising the full chamber height.
6. When using two or more layers of props, ensure that the props are placed vertically over each other to ensure that the weight of the load is passed through each layer of batts and props to the base of the kiln.

7. When firing decorated pieces it may be advantageous to put in a batt propped above the ware to act as a lid or shield to protect the ware from fine particles that may fall from the lid when the lid bung is being removed or replaced.

After 'placing', gently lower the kiln lid. Before firing, ensure that the ceramic 'plugs' are removed from the observation port(s) in the casing and lid allowing for a thorough circulation of air during the early stages of the firing.

SAFETY

The Phoenix 38 kiln is fitted with an approved lid safety switch which cuts off the mains supply to the heating elements should the lid be lifted above the ventilation gap, (approximately 1"/25mm). This switch is set to fine limits which may have been disturbed in transit or when moving the kiln. The immediate effect would be that the kiln elements would not switch on. The purpose of this switch is to cut off mains supply to the elements when the lid is open thereby rendering the kiln chamber safe to load/unload, always assuming that the chamber is cool enough to carry out this procedure.

CAUTION

Burns – Although the temperature of the exterior of the kiln is much lower than the interior, it can reach around 140°C. Extreme care must be taken to avoid contact with the kiln during firings and whilst cooling down. Ideally kilns should be located in a separate room with restricted access particularly where children, potentially vulnerable adults and pets are present.

ELEMENTS

High temperature coiled heating elements are fitted in your kiln. These have been carefully calculated to match voltage specification, therefore, if a voltage is applied different to that stamped on the nameplate, performances will be impaired. If in doubt, check the kiln supplier/manufacturer.

Always ensure that the temperature controller is not set above the kiln's maximum temperature otherwise both elements and insulation will be subject to stresses resulting in premature breakdown.

Elements can become brittle very quickly (after first firing) therefore, if at any time it becomes necessary to handle them, be especially careful otherwise breakage can occur.

IMPORTANT NOTE RE KILN ELEMENTS

Kilns used for china painting will not be used to the maximum operating temperature and therefore, the normal stress relieving of the element wire will not take place. This may result in coils tending to fall away from their support grooves. To assist in overcoming this problem,

it may be necessary to fire the kiln empty on one occasion to 1200/1250°C in order to carry out this exercise. If in doubt, consult supplier or KILNS AND FURNACES, Technical Department.

SPECIAL NOTE IF USING KILN AT LOW TEMPERATURE

If using the kiln to low temperature only, for example for china painting at around 800°C, it is advisable to dry out the kiln to 1150-1200°C for the first drying out firing only which will assist in tempering the high temperature elements, normally used in this type of kiln.

ELEMENT NOISE

Elements tend to hum particularly when the kiln is first switched on and does not indicate any abnormality.

CONTROL SYSTEMS

The microprocessor control system is connected by plugging in the instrument power lead to its socket mounted in the front connection chamber. The plug is secured to the socket by the retaining clip. The controller should be mounted using the bracket supplied to an adjacent wall. Under no circumstances should it be fitted to the kiln body or used freehand in close proximity to any of the kilns outer surfaces.

The controller manual should be referred to before putting the kiln into operation.

SWITCHED OFF.

With the switch in the cut off position, if another firing is required without isolating the control, the switch must be moved to the soak position and back to cut off.

OPERATORS EXPOSURE TO HAZARDOUS MATERIALS

To fully comply with C.O.S.H.H. (Control of substances hazardous to health) regulations, it is our duty to bring to the attention of our customers any hazardous substances used in the construction of our kilns which the operator may be exposed to during the loading/unloading processes or even in minor repair work needed during the lifetime of the kiln.

Generally, the only material falling into this category is the insulation itself and specifically CERAMIC FIBRE (asbestos or asbestos related products **are NOT used under any circumstances**) however, it must be emphasised that during a recent survey carried out at our factory to enable us to comply with C.O.S.H.H. It was found that during the handling of this material, airborne dust

levels were well below the statutory Maximum Exposure Limits. We detail below brief extracts from our suppliers concerning ceramic fibre material.

PLEASE NOT THAT THIS INFORMATION RELATES TO MATERIALS BEING CONSTANTLY HANDLED I.E. DURING MANUFACTURE OR REPAIR WORK – NOT IN THE GENERAL DAY TODAY OPERATION OF THE KILN.

MATERIAL

Ceramic Fibre Blanket/Bulk, Refractory Fibre Blanket/Bulk.

Vitreous Alumino Silicates Fibres/Vitreous Zirconia/Alumino Silicates Fibres.

High Temperature Thermal Insulation.

White fluffy blanket or fibrous mass.

PRODUCT HAZARD SUMMARY

Refer to ECFIA bulletin 11 and Code of Practice.

Non combustible

Stable

PRODUCT HEALTH HAZARD INFORMATION

Effects of exposure

May cause gastrointestinal disturbances, symptoms may include irritation, nausea, vomiting and diarrhoea.

May cause irritation and inflammation due to mechanical reaction to sharp, broken end of fibres.

Abrasive action may cause damage to the outer surface of the eye.

May cause respiratory tract irritation. Pre-existing medical conditions may be aggravated by exposure, specifically bronchial hyper-reactivity and chronic bronchial or lung disease.

Refer to the ECFIA bulletin 11v

Seek medical attention if irritation persists.

Rinse area of contact thoroughly with cold water. Do not rub or scratch exposed skin. Using a skin cream or lotion after washing may help. Seek medical attention if irritation persists.

Flush immediately with a large amount of water. Eyelids should be held away from eyeball to ensure thorough rinsing. Do not rub eyes.

Seek medical attention if irritation persists.

Remove affected person from source of exposure. Seek medical attention if symptoms persist.

PERSONAL PROTECTION INFORMATION

The following guidelines should be followed, especially where engineering controls (e.g. dust extraction) are not possible, or do not reduce the airborne dust concentration below the Maximum Exposure Limit.

Wear goggles to prevent eye contact. Do not wear contact lenses. Have irrigation facilities readily available where eye contact can occur.

Wear gloves if necessary. Wear overalls which are loose fitting at the neck and wrist. Use separate lockers. Wash work clothing separately from other clothing. Other items (e.g. respirators, gloves, helmets, goggles and safety footwear) should also be cleaned or replaced as appropriate.

In accordance with ECFIA codes of practise and ECFIA Bulletin 11

Always close the lid of your kiln gently, thus avoiding unnecessary dust being emitted from the ceramic fibre.

For reasons of safety, it is advisable to wear a heat proof glove when removing vent plugs or damper bungs from a kiln when at high temperature.



CONDITIONS OF SALE

1. Definitions – “Company” means Kilns and Furnaces Limited “Customer” means the customer of the company “Contract” means any contract entered into for the sale of Goods by the company to the Customer “Goods” means any goods forming the subject matter of any Contract and the parts and materials comprised in them and shall include services.

2. Quotations, contracts and variations – No contract shall come into existence before the Company has given its written acknowledgement of the Customer’s order. These conditions shall be incorporated in all Contracts to the exclusion of any terms or conditions referred to by the Customer and supersede any previous conditions of business of the Company. Acceptance of any delivery or performance by or on behalf of the Customer shall in any event be conclusive evidence of the Customer’s acceptance of these conditions. Each Contract supersedes all previous oral or written communications between the Company and the Customer not expressly referred to in any order acknowledgement given by the Company and the company does not authorise the giving of representations on its behalf by any person. No amendment of any Contract shall bind the Company unless confirmed by it in writing.

3. Prices. The Company’s prices exclude VAT where applicable and all other imposts of whatsoever kind and unless otherwise agreed in writing by the Company are ex the Company’s works exclusive of carriage, insurance and packing. The Company’s prices may be varied at any time, at the Company’s discretion, for any increases in costs incurred by the Company after the date on which they were quoted, from fluctuations (including currency variations) in the cost of materials, equipment, labour, transport or utilities arising from whatever cause, any alterations in specifications or quantities or production, delivery or performance schedules or any suspension of work requested by the Customer, or any delay in the supply by or on behalf of the Customer of any instructions, data or materials (including “free issue” items) or any inaccuracy, insufficiency or defect in them.

4. Payment. All amounts due to the Company, unless otherwise agreed in writing, shall be payable in pounds sterling by the last day of the month following that of the date of the Company’s invoice, without any discount, set-off or other deduction whatsoever. Without prejudice to any other rights of the Company, if the invoice is not paid in full by the due date interest shall be payable on any overdue amount from the date on which payment was due to that on which it is made (whether before or after judgement) on a daily basis at the rate of three per cent over the base rate from time to time quoted by NatWest Bank Plc compounded monthly. The customer shall also pay all legal and other costs incurred by the Company in recovering any amounts owing from the Customer and any Goods in which title has been retained by the company. Such costs shall be due for payment immediately on invoice. Without prejudice to any other of its rights and notwithstanding any other agreement or arrangement with the Customer, the Company shall be entitled by giving written notice to the Customer at any time to require the Customer to render the price of the Goods in a manner satisfactory to the company and to refrain from delivering the Goods until the price has been so tendered. If the customer fails to make any payment when and as due or other circumstances entitling the Company to terminate the Contract arise then the price of all such goods as have been delivered to manufacturers for any order or orders of the Customer shall forthwith thereupon become immediately due and payable.

5. Delivery, risk and performance. Unless otherwise agreed in writing by the company goods shall be delivered and risk in them shall pass to the Customer when they are made available to the Customer at the Company’s works. Where goods are made available at a point other than the Company’s premises, unless otherwise agreed in writing, the Customer shall be responsible for all off-loading and the Company reserves the right to deliver the Goods at the nearest point of suitable access. Where goods are consigned to a destination outside the United Kingdom mainland any trade terms referred to in the company’s order acknowledgement shall, to the extent consistent with these conditions, be as defined in the edition of “Incoterms” then current and the Goods shall be delivered and risk in them shall pass to the Customer as therein provided. The Company will endeavour to comply with any date proposed or confirmed by it and to advise of any adjustment but shall not be liable for any loss, damage or expense arising from any delay or failure in delivery or performance from any cause whatsoever nor shall any such delay or failure entitle the Customer to refuse to accept any delivery or performance or repudiate the Contract. If the Customer fails to take delivery of any Goods on the due date or provide adequate delivery instructions the Company may store the Goods at the risk of the customer who shall pay all storage, transportation, handling or other charges incurred by the company as a result of such failure and the Company shall be entitled to payment as though delivery had taken place. The Company may determine the form of packing and transport of any Goods the price of which includes packing and carriage and charge extra for any special arrangements requested by the Customer. The Company may deliver the Goods by instalments each of which shall be deemed to be the subject of a separate contract and, unless otherwise agreed in writing no failure by the company in any one or more instalments shall entitle the Customer to repudiate any Contract for Goods previously delivered or to refuse to accept any undelivered Goods

6. Title. Notwithstanding the earlier passing of risk, title in the Goods shall remain with the Company and not pass to the Customer (who shall, nevertheless, subject to the conditions stated below, be entitled to resell them as principal only and to use them in the ordinary course of business) until the Company has received in cash or cleared funds payment in full of the price of the Goods and of all other debts for any other goods or services owed to it by the Customer on any account. Until the title passes: The customer shall hold the Goods as bailee for the Company and ensure that they are at all times clearly identified as the property of the Company. The Company shall be entitled at any time on demand to repossess, remove from other equipment (without being liable for any damage thereby occasioned) and sell all or any of the Goods and thereby terminate (without any liability to the Customer) the Customer’s right to use or sell them, and enter any premises where the Goods are located for the purpose of inspecting or repossessing them. The Company shall, without prejudice to any other remedy, be entitled to maintain an action for the price of the Goods although title in them has not passed to the Customer. The Company transfers to the Customer only such title and rights of use as the Company has in any Goods and in the case of material provided by any third party shall transfer only such title and rights as that party had and has transferred to the company.

7. Lost or damaged goods etc. If at the time of delivery any Goods are missing, lost or damaged or otherwise not in accordance with the Contract the Company will at its expense make good the discrepancy within a reasonable period by the replacement of the Goods concerned at the original point of delivery or, in its discretion, their repair or, at its option, allow credit for their invoice value subject to these conditions and all other requirements of the company current from time to time. The Company shall have no liability in respect of any discrepancy (in case of any Goods which are missing, damaged or otherwise not in accordance with the Contract) written notice is given within three (3) working days of receipt of the consignment or (in case of any loss or damaged could have occurred in transit and where the company has agreed in writing to assume responsibility for carriage) with such period and in such manner as will enable the Company to comply with time limits or other requirements imposed by any carrier of which written notice has been given by the Company to the Customer, or (in case of loss of a whole consignment) written notice is given to the Company within seven (7) days from the date of invoice.

8. Warranty. The Company will subject to these conditions within a reasonable period at its option make good free of charge by replacement at the original point of delivery or repair or give credit for the invoice value or any kiln structure, insulation materials or workmanship or (to the extent only the Company is responsible therefore) design which appears during a warranty period of 12 months from the date of despatch by the Company (normal wear and tear accepted) provided the customer has given the Company written notification of the defect immediately upon the occurrence of such failure and in any event within the said warranty period. The Company shall have no liability for any Goods which have been installed, used, maintained, served, adjusted or stored otherwise than by the company or in accordance with its recommendations (or the recommendations of any supplier of any item with which the Goods are used) or have suffered any excessive wear, overloading, misuse, neglect or accident or may have been subjected to operating temperatures in excess of those for which the Goods are designed any accessories or proprietary parts or fittings and if any item which is not of the Company’s manufacture is alleged to be defective, the Company’s liability shall be limited to assigning to the customer (so far as it is able to do so) any warranty given by the manufacturer of that item any Goods which have been repaired modified or interfered with in any way or in or with regard to which any part not of the company’s manufacturer or supply has been used without the Company’s prior written approval or the Customer has failed to carry out any modification or improvement recommended by the Company or any defect has occurred in any design provided or approved by or on behalf of the Customer any Goods whose serial number or other identification mark or plate has been removed, defaced or tampered with the costs (including travel) of the Company’s representatives involved in carrying out repairs on site and all such costs shall be borne by the Customer, any defect in any replacement Goods which appears after the warranty period applicable to the original Goods has expired. Heating elements, bearings, fibre seals and any similar parts or items or any damage

resulting from the kiln being allowed to exceed the intended maturing temperature of the ware being fired. Except as expressly provided in this condition the Company accepts no liability, express or implied, for any life or wear of any Goods or their merchantability or suitability for any particular purpose or use under specific conditions whether or not known to the Company).

9. Claims. The company shall have no liability in respect of any claim by the customer under these conditions unless the Customer has afforded the company reasonable opportunity and facilities for the investigation of any claim and the making good of any discrepancy or defect and complied with any request by the Company for a written report of any alleged defect and any photographic or other evidence or maintenance or operating records and, if the Company so requests, the return, securely packed, of any Goods (including the packing) for examination or rectification by the company, the cost of transportation to be borne by the customer but credited by the Company if the claim is accepted and the Customer has paid the full amount of all invoices due prior to the date of the claim. Where a claim is accepted, any replaced items shall belong to the Company and may be disposed of only in accordance with the Company's instructions.

10. Extent of liability. Except to the extent stated in these conditions or otherwise agreed in writing by it, the company shall have no obligation, duty or liability in contract, tort (including negligence or breach of statutory duty) or otherwise howsoever under or in connection with the Contract other than for death or personal injury resulting from its negligence. The Company shall have no liability for any indirect or consequential loss or damage suffered by the customer under or in connection with the Contract, including but not limited to wasted time or expenditure, loss of profits, production, business revenue expected savings or goodwill or any claim against the Customer by any person and the Customer shall be solely responsible for any such claim. The Company shall be discharged of all liability to which these conditions apply unless proceedings are begun with six (6) months after the Customer became aware (or should reasonably have become aware) of the facts giving rise to such liability. Any claim by the Customer or acceptance of liability by the company in respect of any particular Goods shall not entitle the Customer to reject or refuse to pay for any other Goods comprised in the same or any other Contract.

11. Termination or suspension. If the Customer fails to make any payment when and as due or otherwise defaults in any of its obligations under the Contract or any other agreement with the Company, is unable to pay its debts in the ordinary course of its business, has a receiver, manager, administrator, administrative receiver or trustee in bankruptcy (as the case may be) appointed for all or any part of its undertaking, assets or income, is the subject of any bankruptcy order, has a resolution passed for its winding up, has a petition presented to any court for an administration order or for its winding up, enters into any composition or arrangement with its creditors (whether formal or informal), has any distraint or execution levied on any of its assets, suffers any action similar to any of the foregoing in any jurisdiction or ceases to trade or the company bona fide believes that any of the foregoing matters may occur, then, in any such event, the Company shall, without prejudice to any other remedy, be entitled, at its discretion, by giving the Customer written notice at any time, to forthwith suspend its performance of or terminate such Contract without liability to the customer. The rights of the Company shall not be prejudiced or restricted by any indulgence or forbearance extended to the Customer and no waiver by the Company in respect of any breach shall operate as a waiver in respect of the same or any subsequent breach.

12. Force majeure. The Company shall not be liable for any delay or other failure to perform the whole or any part of the Contract resulting from any cause whatsoever beyond the Company's control existing at the date of the Contract or arising thereafter including but not limited to fire, explosion, breakdown or failure or plant or machinery, lack of failure of transportation facilities, supply of labour, materials, power or supplies, strike, lockout or labour dispute (whether or not at the Company's works), illness, epidemic, flood, drought, war, civil commotion, or restriction of any authority or governmental agency and the time for performance shall be extended by the period of any such delay.

13. Tests. Where any tests are to be conducted or carried out at the Customer's premises and the Customer fails upon reasonable notice of up to fourteen (14) days to carry them out or permit them to be carried out or has commercially operated the Goods before the date for testing such tests shall be deemed to have been successfully carried out.

14. Site works. Where any services including attendance are undertaken by the company on the Customer's premises the Customer shall at its expense provide such facilities, foundations, services and equipment and do all things as the Company requires for the performance of its services and ensure that the same are safe and suitable to enable such services to be performed and comply with all legislative and other requirements of whatsoever nature applicable at the Customer's premises. Be responsible for obtaining all consents of whatever nature which are necessary for the performance of the company's services. Afford access to the Customer's premises at such dates and times and provide such assistance (including the obtaining of any visas) as the Company requires, and be responsible for all civil engineering work, making good and clearing away any material consequent upon the performance of the Company's services.

15. General. Any specifications, drawings, particulars of weights and dimensions and other technical information contained in the Company's quotations, catalogues, price lists, advertisements or elsewhere are approximate only and intended merely to present a general idea of the Goods and (unless otherwise agreed in writing by the Company) are not to form part of the Contract. The Company reserves the right to discontinue the sale of particular products or alter their designs and specifications without notice and to deliver Goods conforming to the altered design or specification in fulfilment of any Contract. No Contract shall constitute a sale by sample notwithstanding that any products may have been exhibited to or inspected by the Customer. Any performance figures given by the Company are based upon experience, trials or testing but unless expressly agreed in writing by the Company no liability is accepted if such performance figures are not achieved. All drawings, designs or other data (whether or not patentable or patented) and all rights therein (including copyright and design rights) and all materials, tools, patterns, or other items prepared or made available by the Company for the Contract shall, unless otherwise agreed by the Company, be and remain the Company's property and the Customer shall not copy or reproduce the same in whole or in part in any form or allow others to do so. The Customer shall indemnify the Company against any and all claims, proceedings, costs, damages, liabilities and expenses incurred or suffered by the Company arising from any instructions, data, drawings, specifications, tooling, equipment, goods, services or other items supplied by or on behalf of the Customer to the Company or from any failure to supply the same or from any infringement or alleged infringement of the rights of any third party claimed under or in relation to any patent, registered design, trademark, copyright, design right, breach of confidence or otherwise howsoever resulting from the Company's use of any of the foregoing items. The Company shall have no liability for any inaccuracy or inadequacy of such items and shall be entitled to charge extra for any costs resulting therefrom. The Company may at its discretion sub-contract all or any of its obligations under the Contract but the Contract shall not be assigned by the Customer without the Company's prior written consent. The Company shall have a lien on any goods in the Company's possession for all sums due at any time from the Customer on any account and shall be entitled to keep possession of or at its option sell or dispose of the same as agent for and at the expense of the Customer and apply any proceeds in and towards the payment of such sums on twenty eight (28) days written notice to the Customer. The customer shall treat the contract and all information which is acquired thereunder as confidential.

16. Law, jurisdiction and construction. The contract shall be governed by English law and the parties consent to the exclusive jurisdiction of the English courts in all matters relating to the Contract except to the extent the Company involves the jurisdiction of the courts of any other country. The headings of conditions are for convenience of reference only and shall not affect their interpretation.

17. Notices. Any notice to be given under the contract shall be in writing and if sent be prepaid registered mail to the receiving part at its business address as last notified in writing to the other party shall be deemed to have been given 2 working days (or 7 working days in the case of Customers outside the United Kingdom) following the date of posting.

Registered Office:

Cinderhill Trading Estate
Weston Coyney Road
Longton
Stoke on Trent
ST3 5JU.