



Cochran Ltd
Newbie Works, Annan,
Dumfries & Galloway,
Scotland, UK DG12 5QU

Telephone: +44 (0)1461 202111
Fax: +44 (0)1461 205511
Email: enquiries@cochran.co.uk
www.cochran.co.uk

HEALTH AND SAFETY PRODUCT DATA SHEET – COMBUSTION EQUIPMENT

The purpose of this document is to inform the end user of the key points and controls that must be in place to ensure that our Combustion Equipment is safe and without risk to health when properly used.

1.0 PRODUCT

- 1.1 Oil, Gas and Dual Fuel Burners:-Cochran Simplex, Triplex, Equinox and Ultranox burner units
Chain Grate Stokers:- Cochran Triumph Stoker Unit

2.0 INTENDED USE

- 2.1 The burner or stoker is normally fitted to a boiler and has been designed for the efficient combustion of the fuel specified in the contract.

3.0 BURNER CONSTRUCTION

- 3.1 The burner or stoker is manufactured from suitable materials as specified in the relevant Standards.
- 3.2 Developed to current test authority requirements. Delivered ready to install.

4.0 INSTALLATION

- 4.1 As the burner or stoker we manufacture may be fitted to an appliance not of our manufacture, due regard must be given to the operating instructions of both appliances.
- 4.2 At all times the equipment shall be installed and operated in accordance with sound engineering and safety principles and as outlined in the operating instructions. This cannot be over emphasised when dealing with inflammable substances. Careful attention must be made to regulations applicable to the storage and handling of fuels.

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- 4.3 Reference must be made to the relevant British Standards and Codes of Practice or the equivalent, where applicable in accordance with the Contract, in the Country of application of use. The installer must also be familiar with local regulations and insurance requirements, which will serve as a valuable guide to a safe installation and operation.
- 4.4 The equipment has been designed to operate with the fuels at the conditions specified in the contract. Proposed changes to any part of this specification must be referred to the Manufacturer for approval, as must any other questions relating to safe operation of the equipment supplied.

5.0 HEALTH AND SAFETY WARNING NOTES

- 5.1 Before operating or working on a burner/stoker it is essential that all personnel involved in the activity have read and thoroughly understood the operating instructions supplied.
- 5.2 The foregoing notes are not intended to supersede or over-ride any other safety regulations. In all cases operatives must consult their Local Safety Instructions, the Operation and Maintenance Manual and the authorised responsible person or Safety Officer, if one is appointed. Alterations and adjustments of any nature must only be carried out by qualified and authorised personnel.
- 5.3 The combustion equipment may be fully automatic in operation and may start-up or shut-down and linkages, actuators, etc. may move without warning.
- 5.4 Do not attempt to work on the combustion equipment or any moving parts of the combustion equipment or any items such as F.D. Fans, I.D. Fans, exhaust gas dampers, water pumps or other items which may become energised under supervision of the control equipment, without firstly switching the combustion equipment off, allowing it to complete its shut-down sequence and then isolating the energy supply from all of the relevant equipment to be worked upon.
- 5.5 Before carrying out any electrical work on the equipment ensure it is isolated at the main boiler house switchboard and cannot be reinstated without due warning. Ensure that there is no possibility of a feedback from other control systems.
- 5.6 Safety interlocks are provided for your protection. Their operation and settings must be checked at regular intervals. Alteration or adjustment of settings must only be carried out by suitably qualified personnel.

UNDER NO CIRCUMSTANCES MUST ANY INTERLOCK BE MADE INOPERATIVE OR PREVENTED FROM ESTABLISHING A FAIL SAFE CONDITION

- 5.7 Do not leave control panels or junction boxes uncovered whilst power is on. Should it become necessary to do so, in the interest of rectifying faults, then only competent qualified personnel must be involved. **WARNING NOTICES MUST BE POSTED** and the covers must be replaced as soon as possible and restricted access established for qualified personnel only.

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- 5.8 Isolate electrical supplies and fuel lines, as required, before attempting to work on the combustion equipment. **POST WARNING NOTICES** as necessary and ensure plant is sufficiently cooled and ventilated, etc.
- 5.9 Ensure that hot pipes, such as those containing steam or oil, are lagged. Restrict access to any area where hot metalwork or gases may be encountered.
- 5.10 In the event of a leakage or spillage of fuel this **MUST BE CLEARED UP IMMEDIATELY** to prevent a fire hazard. Consult the responsible person or your Safety Officer, if appointed, for appropriate precautions. Make no attempt to operate the associated plant whilst fuel is escaping.
- 5.11 With gas burners any suspected leakage of gas whether into furnace or firing floor area must be treated as **AN IMMEDIATE AND DANGEROUS EXPLOSION RISK**. The area must be cleared immediately with full 'no smoking', 'no naked flames' and 'no source of ignition' precautions taken as instructed by the responsible person or Safety Officer, if appointed. The burner must be shut down and isolated in a safe manner. The source of the gas leak must be established and appropriate action taken.
- 5.12 Keep the area surrounding the combustion equipment and its associated equipment clear of debris, dust and rubbish.
- 5.13 Ensure fan inlets are guarded.
- 5.14 Do not make repeated attempts to light the fuel. If a flame cannot be established, carry out an investigation into the cause. A succession of abortive attempts may result in the build up of an explosive mixture at some point in the system.
- 5.15 With solid fuel burning Stokers, **NEVER UNDER ANY CIRCUMSTANCES POUR OIL, PARAFFIN OR SIMILAR INFLAMMABLE MIXTURE** on the solid fuel to ignite it.
- 5.16 Take care when re-lighting a solid fuel fire, after the appliance has been shut-down for a period as some heat may be retained within the system.
- 5.17 Under no circumstances should a live fire be removed from the front of a solid fuel appliance.
- 5.18 In the event of a power failure in a solid fuel fired installation, do not open any access door until dangerous toxic gases, which are present within the system, are dispersed. In the case of emergency shutdown with electric power available, any fan in the system should be started to remove the gases, before opening any access door and then only after a suitable interval.

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6.0 TRAINING OF OPERATORS

6.1 It is important that customers personnel understand the safe working of the plant and that competent maintenance personnel carry out regular checks, make adjustments and repairs.

It is worthy of note that the importance of training is also emphasised in Health and Safety Executive Guidance Note BG01.

6.2 Cochran organise throughout the year a series of Courses designed to cover the correct operation and maintenance of Boilers, their combustion and control equipment. On Site Training Courses are also available. Details on request.

6.3 Additionally, Cochran provide a full range of Customer Services covering plant operation, servicing, maintenance, repair, conversion/retro fit and spares supplies, as well as energy saving, energy conservation and emissions control consultancy.