#### Claims

Any claims under this warranty must be submitted first to the dealer from whom the unit was purchased. If for any reason the dealer cannot be located, please forward your claim in writing, stating the model, outlet purchased from, serial number and date of installation.

Warning: Any modification of the appliance that has not been approved in writing by the testing authority is considered as breaching AS/NZS 4013.

This appliance must not be modified in any way without the written approval of the manufacturer. Failure to do so will invalidate this warranty.

Note: - Milan Clean Air Fires must not be fitted with a wetback / water booster

 Wood must be loaded front to back in firebox in Milan Clean Air Fires.

Affix stamp here

Send to:

P.O. Box 58 678

Botany

Manukan 2163

# Milan HEATING SYSTEMS

# Operating And Maintenance Instructions

### Warranty

Note: Important information regarding Milan Clean Air Fires on back of pamphlet Please keep these instructions for future reference

DALLAS METAL INDUSTRIES

Milan Heating Systems

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P.O. Box 58 678, Botany, Manukau 2163

Ph (09) 273 9051 Fax (09) 273 9071

Proudly Manufactured by Dallas Metal Industries

Proudly Manufactured by Dallas Metal Industries Ltd

#### mroauction

Milan Heating Systems Ltd take this opportunity to thank you for purchasing a Milan fire. We are confident that when installed and operated correctly you will achieve many years of warmth and pleasure from your Milan fire. In this booklet you will find information on fire operation, fuel, wetback and booster requirements, warranties and some helpful hints on maximising your fire purchase.

**Caution:** This appliance should be maintained and operated at all time in accordance with these instructions.

#### Firewood

To gain best results from your fire use only dry seasoned wood. Wood with a moisture content no greater than 20% should only be used. Below are a few tips to help you to select dry wood.

- a) Cracks Cracks in the log tend to show drier wood.
- b) Hit two pieces of wood together. A high pitched ring is preferable, not a low thud
- c) Split a sample first and then burn, this should give you a good idea of the moisture content.

## Wood Drying and Storage

- Buy or cut wood well in advance of use a year ahead if possible.
- Dry it in the summer months. This means buying it or cutting it the preceding winter or spring.
- Once it is dry, get it covered. A separate shed or lean-to is ideal. Sometimes it
  may be stacked against an outside wall, sheltered partly by the eaves of the
  building.
- Long wood can be stacked like a tepee to dry. Rain tends to run off and will not be readily absorbed by the wood.
- Keep it off the ground to prevent rot, wood in contact with the ground will begin to
  rot. The fungi which causes the rot will use up the wood's energy so there is less
  left when it is burned.
- The shorter the piece of wood, and the more of its surface area is exposed to the air, the faster it will dry.
- Before firewood is heaped or stacked, lay down two or more parallel rails and then place firewood on top of these. This not only allows good air circulation but also prevents the wood from re-absorbing moisture from the earth. Stack or pile the wood loosely to create spaces which will allow air to move freely through the pile.

Caution: The use of some types of preservative-treated wood as a fuel can be hazardous.

**Warning:** Do not store wood within the fire installation clearances.



#### Owners copy

	Color
Model	Serial
Date purchased	Date installed
Dealer purchased from	
Installers signature	



To be completed and returned within 30 days of installation

Customer Name Customer Phone	***************************************
Customer Address	
Model Serial number	
Date purchased Date installed	
Dealer purchased from	
Installers signature & registration no	
☐ If you would like your name to appear on the Milan mailing list, please tick.	

Dallas Metal Industries Ltd, **/Nilan** Heating Systems, reserves the right to change specifications or design of its product without prior notice.

# Service and maintenance schedules

Milan Heating Systems recommend the following:

- a) Baffle plate should be inspected monthly during the heating season for any signs of deterioration or shape distortion.
  - All secondary air tubes should be inspected monthly during the heating season for any signs of deterioration and possible signs of "burning out".

NOTE: Shape distortion and "burning out" of the baffle plate and/or secondary air tubes causes the firebox to overheat and overfire. As this causes the fire to operate in a manner it was not designed for, operating your fire with worn, deteriorated or "burnt out" baffle plate and/or secondary air tubes will invalidate your warranty

- c) It is advisable to have your Flue swept at least once during the Heating Season, more frequent cleaning is recommended if your fuel has a high moisture content. At this time have the Baffle Plate, Secondary Air Tubes and Fire Bricks examined for any signs of wear and tear.
- d) Lubrication the door latch and hinge should be lubricated every few months with a suitable high temperature grease.
  - e) Door glass dirty door glass is usually caused by the following:
    - 1) Burning wet or green firewood.

Remedy: Burn only dry seasoned wood.

- ) Extended burn times on low setting.

  Remedy: Burning your fire with dry wood on high setting for 30-40 minutes should clean off the worst of the film.
  - Partially blocked flue. Remedy: Have flue swept.

#### Warranty

#### /arranty

The Milan firebox is warranted for a period of five years from date of installation. The following componentry is warranted for a period of twelve months if proved to be defective in workmanship or material when operated under normal domestic use.

- a) Door glass and seals d
- seals d) Flue system
- c) Baffles
- e) Secondary Air Tubes f) Baffle and firebox promat

#### Warranty Conditions

The Milan fire must be installed in accordance with all applicable regulations, by-laws and manufactures specifications. The manufacturer recommends that the Milan woodfire be installed by a N.Z. Home Heating Association certified installer.

### Warranty Exclusions

The warranty does not cover damages caused by the following:

- a) Wetbacks/Water boosters.
- b) Burning of improper fuel i.e. bituminous coal, coastal driftwood, chemically treated or unseasoned wood.
- c) Work done by other i.e. installers, chimney sweeps or plumbers.

IN ORDER FOR THIS WARRANTY TO BE VALID THE WARRANTY CARD MUST BE COMPLETED IN ITS ENTIRETY AND MAILED WITHIN 30 DAYS OF INSTALLATION TO: Dallas Metal Industries Ltd

Millam Heating Systems P.O. Box 58 678, Botany, Manukau 2163

## Lighting your fire

Place fire setting on high and place kindling on top of crumbled newspaper. Light the newspaper and leave the fire door slightly ajar. Once the kindling is fully alight place some heavier pieces of wood into the flame path. You may need to keep the door ajar for a few more minutes depending on size and moisture content. Once this load is alight you can close the door. When refueling your fire use smaller to larger pieces of wood and let the fire take hold of the wood before adjusting to a lower setting. On initial lighting of your newly installed fire, do not be concerned if your fire smokes. This is the final curing process of paint and enamel. It is advisable to open all windows for 40 - 60 minutes during this "breaking in" period.

Warning: Do not use flammable liquids or aerosols to start or rekindle the fire. Warning: Open air control (slide handle to high position) before opening fire door. Warning: Do not use flammable liquids or aerosols in the vicinity of this appliance

when it is operating. Warning: When operating this appliance as an open fire use a fire screen.

### A longer burn time

Extended burn time can be achieved as follows. Load your larger fuel on to a hot glowing bed of embers and leave the air control on high setting for 10 - 15 minutes. This will help drive moisture from the wood and reduce creosote buildup. Failure to do this can result in the fire smouldering and going out. You can now adjust the air slide to a lower setting. You will have to experiment to find the exact setting required. Firewood type, fuel weight, weather conditions, all are factors in achieving a prolonged burn time.

**Note:** In some installations where an extremely long flue length is used, or there are predominant winds or nearby obstructions, an extended burn time may prove difficult to achieve.

Remember: Although fire holding periods may be increased by turning down the air control, this is at the cost of greater emissions and creosote production. At low settings creosote will condense on the glass reducing the visibility of the fire. The best indication that your Milan Fire is operating correctly is that the glass remains clean without black/brown deposits. A whitish bloom on the door is normal and generally does not indicate a fault in operation. The operation of your fire determines the condition of the flue, with continued burning at high rates minimising soot and creosote build up. Burning on low settings can quickly lead to the flue becoming blocked with deposits of soot and creosote. This will mean frequent flue cleaning will be required and if not, in the worst scenario, could lead to a fire in the flue as the soot and creosote ionite.

## Creosote prevention

Creosote, a messy tar-like substance, is an unavoidable by-product of wood burning, and one of the fire owner's biggest problems. Fires, fired near their capacity, will give fewer creosote problems. But fires that are packed with as much fuel as possible, and then dampened down for overnight burning, are hazardous. The fire eventually cools to a point where combustion is incomplete and partly burnt gases enter the flue. If the flue has cooled enough, unburnt gases and water condense to form an acid solution. The condensate will be a liquid brown or tar-like substance in fluid form. It looks like varnish and has a powerful odor. It contains a large amount of water and will drip down the flue. Gradually the water evaporates to leave solid residues or acetic and pyroligneous acids.

At this stage the substance will be thick, sticky and very much like tar. With age it is transformed by heating into a hard, porous, shiny material or a flaky dust. The form creosote takes depends on the temperature at which it condenses, but irrespective of form it may ignite at any time. To minimise creosote build-up, it is better to load fire frequently with smaller amounts of fuel and to burn the fire hotter. While this may appear to involve more work it maintains a cleaner flue, resulting in better safety.

#### Flue fires

Fires occur when creosote and/or other combustion deposits on the inside of the flue wall burn, so they are more likely to occur when there is a sizeable build up of creosote in the flue. Once the creosote in the flue ignites, flue pipes will become red hot and will usually vibrate severely. Should a flue fire occur, follow these safety steps. To people inside a house, the first indication is usually the noise. As the intensity of the fire increases, the noise will become very loud and is most often characterised as sounding like a freight train. From the outside, clouds of black smoke and sparks will be seen flaring from the flue. In severe cases, flames can extend many feet.

# Safety steps in the event of a flue fire:

- Evacuate occupants of house immediately.
- Call the fire department immediately.
- Close the air slide control to the heater. This will limit the air supply to the fire and reduce its intensity
- Open the door to the heater far enough to insert the nozzle of a dry chemical fire extinguisher rated for Class ABC fires. Discharge the entire contents into the heater and shut the door. If no fire extinguisher is available, soak a complete newspaper in water and place it inside the firebox, completely dousing the flames
   If possible, wet down the roof and other outside combustibles to prevent fires
- started by shooting sparks and flames

  Cloock isometric to be revent tires
- Closely inspect all combustible surfaces close to the ceiling penetration as these can become hot enough to ignite in the event of severe flue pipe fires.

 Have the flue system inspected by a recognised professional before further use Remember that regardless of the type of wood fire you purchase, performance will depend more on your operation of the heater than the fire itself. Even the best fire cannot correct poor burning habits.

# Creosote prevention

Flue cleanliness depends entirely on the quality of wood burnt and in the operation of the appliance, i.e. dry seasoned wood should be burnt and not on a low setting for long periods of time. If this is done a twice annual clean will probably suffice. Wet wood and possibly a wetback or booster system will create creosote formation within the flue. This will definitely impede the fire performance and increase the risk of a flue fire. Under these circumstances Milan Heating Systems urge that frequent flue cleaning should be handled by professional chimney sweep who can also offer a maintenance report on fire, parts and flue condition.

#### Door glass

Caution: This appliance should not be operated with a cracked or broken glass. Consult your Milan dealer immediately for correct glass replacement.

#### Ash removal

If your Milan fire is operated correctly as per instructions given, most of the ash will be consumed by fires and a small bed of ash will be maintained with minimal build up. If you find that you are having to clean out ashes very frequently it indicates that the wood fire is being operated incorrectly, i.e. wet wood is being used and or, the air control is being turned to a lower setting too often.

Never clean out the firebox completely, leave an ashbed of approximately 20 - 25mm in the firebox. This will assist the burning process by allowing air circulation under the fire bed. When removing ashes always place in a non combustible container with a tight fitting lid and immediately move to an area clear of combustible materials.

# Wetback and booster requirements

**Note:** - Milan clean air rated fires must not be fitted with a wetback or water booster.

Only an authorised plumber should fit a wetback/booster system.

To ensure an efficient water operation, the fire should be installed as close as possible to the water cylinder. Optimum performance will be achieved if this distance is less than 2 metres and the base of the cylinder sits higher than the fire top.

# Booster/Wetback Installation

- 1) Remove the outer rear panel.
- 2) Remove cover plates from the holes in the firebox rear.
- 3) For some models, fire bricks may have to be removed for installation.
- Replace rear outer panel.