

# INCINER8

## Incinerator Model A400 - G

### Operators Manual

***Important***

Failure to cure refractory  
Before using will void warranty

(see refractory curing procedure)

Tampering with orifices in the burner will void warranty

***Revised January 2005***

# Owners Manual

For Gas Fired Incinerator Models A400

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### ***Features Overview***

- Designed for economical performance.
- 200 kg capacity.
- Low profile for easy loading and ash removal.
- Refractory lined to retain heat for efficient operation.
- Available with LP, natural gas, or oil burner (Diesel / Kerosine).

### ***Fuel Efficiency***

- Rapid incineration means low fuel consumption.
- Higher burn rate than smaller models.
- Thick refractory lining in main chamber retains heat, increasing efficiency.

### ***Quality Built to Last***

- Heat resistant aluminized steel.
- Stainless steel stack.
- Backed by over 30 years of incineration experience.

### ***The Benefits of Incineration . . .***

**COST EFFICIENT** - Compare incineration to composting. Studies found costs of incineration to be very favourable against other methods of disposal.

**SANITARY** - Waste can be destroyed as fast as it accumulates. Nothing is left to spread disease or to attract rodents and flies.

**CONVENIENT** - Fill the chamber and turn on the burner. No watching required since timer automatically shuts down burner. Alternative methods frequently require more time to manage and maintain.

**THOROUGH** - Leaves only sterile white ash and brittle bone fragments. Reduces animal carcasses to approximately 5% of sterile residue.

### ***Charging Rate***

**PATHOLOGICAL** - Up to 200 kg per charge of typical pathological waste with a BTU/lb rating of 1,000. For best results, cool down and remove ash before reloading.

**BURN RATE** - Approximately 40 kg/hr for LP or Natural Gas and 45 kg/hr for fuel oil.

<b>Specifications Summary</b>		<i>All installations must be in accordance with state and local codes.</i>	
<b>WASTE CHAMBER</b>			
Chamber capacity (Type IV waste - animals)		200 kg	
Chamber volume		.36 m <sup>3</sup>	
Chamber size (outside) (less burner and counter weights)	Width	91 cm	
	Height	86 cm	
	Length	122 cm	
Door opening		56 x 74 cm	
Height to door		77 cm	
Height to top of stack		3.3 m	
Suggested slab size (L x W x Thickness)		1.8 m x 2.4 m x 10 cm	
<b>STACK</b>	30 cm diameter 16 gauge (1.52 mm) stainless steel		
<b>BURNERS</b>	LP or natural gas burner. Oil burner		
<b>Operation</b>	Single burner or Two stage burn with timer (Defra models only)		
<b>ELECTRICAL SERVICE</b>		Standard - 115 volt, 60 HZ, 20 amp	
		Also available - 220 volt, 50 HZ, 10 amp	
<b>FUEL CONSUMPTION</b>	LP	3.0 GPH	11.4 l/hr
	Natural	275 CFH	7.8 m <sup>3</sup> /hr
	Fuel Oil	3.0 GPH	13.2 l/hr
Secondary Chamber (DEFRA Approved models only)			
Chamber size (outside)		Width 43cm	Height 200cm
		Length 66cm	
Chamber Volume		.44 cubic meters	
<i>We reserve the right to alter specifications without prior notice</i>			

## **Installation**

Must be installed in accordance with local codes and ordinances, subject to regulatory agencies. Stack test data is available from the distributor for permit application. If on-site testing is required, it is the responsibility of the purchaser and can be arranged through the distributor. Outside installation is recommended with a simple metal roof or three-sided metal shelter, providing a minimum four foot clearance from any combustible material. Inside installations may have special insurance requirements. Factory must be advised.

## Inciner8 Incinerator Model A400

Installation Location:

Installed by:

Date:

Sold By:

### Service Record

Date	Comments

## Site Information

1. The A400 incinerators are designed for outdoor installation on a concrete slab 1.8m x 2.4m x 10cm thick this should be smooth and impervious to aid in cleaning around the incinerator area. Drainage or some bunding around the incinerator area is ideal to avoid any waste materials running off the concrete slab.
2. The A400 may be installed in a three-sided shelter, but must comply with local building and fire codes for clearances from combustible walls and materials. A minimum clearance of 1.25m around the incinerator is recommended for service and maintenance.
3. The incinerator should be sited away from animals, feed or bedding areas. For health and safety reasons the incinerator area should be kept locked at all times when not supervised.

***Please note that it is essential to use an authorised technician for the electrical and fuel installation and inspection***

### **Electrical Service – 220 Volt, 50/60 HZ, 10 Amp**

1. Electrical service can be supplied by plugging into the cordset.

NOTE: Polarity must be maintained or the burners will not operate. If burners 'lock out' after approximately 5 seconds and the blower continues to operate, then the polarity is incorrect. It should be corrected at the power source, not in the incinerator control.

### **Fuel**

- ⇒ Install gas line with 18mm minimum diameter tubing or piping. Larger line may be needed depending on the gas supply and regulator location.
- ⇒ The A400 requires approx. 275,000 BTUH for operation
- ⇒ Using soap solution leak test all gas connections

### **REGULATOR:**

- ⇒ Regulate LP gas to 11" (4.6cm) water column and natural gas to 7" (3cm) water column.
- ⇒ Use a properly sized regulator which maintains reduced pressure under static conditions when no gas is flowing. (Dead end lock up)
- ⇒ Do not exceed 14" (5.85cm) water column under static conditions when there is no gas flow.

### **Pressure Gauge**

- ⇒ A gas pressure gauge is supplied with each incinerator and should be threaded into the pressure tap on the cut off cock.

## Assembly Instructions

### Site

1. Position the incinerator on the concrete slab as needed for fuel and electrical hook up.

### Stack / Chimney

1. Bolt the refractory lined stack to the primary chamber using the 8 x 3/8-16 x 1 bolts and nuts. Place the fibreglass rope gasket between the stack and the main chamber.
2. Bolt the stainless steel stack to the refractory lined stack using 8 x 3/8-16 x 1 bolts and nuts.
3. Position the stack screen over the top of the stack and attach with the 3 x screws.

### Primary Chamber

1. Bolt the door latch to the primary chamber with 4 x 3/8-16 x 1 bolts and nuts
2. Bolt the counter weight to the counter weight arm with 2 x 5/16-18 x 7-1/2 bolt and nuts. ***(IT IS VERY IMPORTANT THAT THE DOOR IS NICELY BALANCED AND MAKES A FIRM SEAL AROUND THE WHOLE CASE WHEN CLOSED SHUT – FAILURE TO DO THIS CAN RESULT IN THE INGRESS OF COLD AIR ALLOWING DAMAGE TO THE REFRACTORY LINING WHEN HOT)***

### Burner

1. Attach the main burner cover and burner to the primary chamber with 4 x 3/8-16 flange nuts.

## **Commissioning and start up procedures**

1. It is imperative that the refractory has been cured (see page 9 for details)
2. All pipework must be checked for leak tightness and should be free from dirt and debris. Welding slag needs to be removed and the pipework should be completely clear of any obstruction.
3. It is important that the burner is set correctly by adjusting the air / fuel flow. When looking at the burner flame it should not be producing black smoke at the ends of the flames, small adjustments should be made to lean the flame so that it is clean.

The above should also be checked after periods of shutdown.

## **OPERATOR INSTRUCTIONS**

### ***Curing of the refractory is essential prior to burning the first load of waste***

1. The incinerator should not be modified in any way not in keeping with the manufacturers instructions, this will not only void warranty but will possibly fail to meet 'animal-by-product act' (UK)
2. Dedicated tools should be used for use with the incinerator only, and not be used elsewhere.
3. REMOVE ASES before loading the incinerator.
4. Select the 'Pre Heat' switch to ignite the burner whilst the primary chamber is completely empty.
5. Once the temperature reaches in excess of 850 deg C displayed on the temperature readout, select the 'Off' setting on the switch.
6. NOW LOAD THE INCINERATOR. Keep the waste 20cm away from the burner port.
7. Lock the unit door to ensure that no one can inadvertently access the chamber during the burn
8. START BURNER by setting the switch to 'incinerate' for the desired burn time. A full load will normally burn out in 3.5 hours. Please note that once the burner has stopped heat will be retained in the refractory liner causing the burn process to continue.
9. The incinerator will AUTOMATICALLY SHUT OFF when the burn is completed.
10. For the best results BURN DAILY TO A WHITE ASH
11. Do not store carcasses in the incinerator chamber. 'singe and burn' does not constitute an approved pre-incineration storage process.
12. In case of any form of breakdown, shut down the incinerator immediately.
13. It is important in the unlikely event of a breakdown that the customer has a valid contingency plan in order to dispose of animal-by-product safely and within the confines of the 'animal-by-product act'.
14. To comply with the 'animal-by-product act', the operator must monitor and record the temperature in 10% of all 'burns', i.e. 1 in every 10. This should be done by recording the temperature every 2 hours. The record book needs to be kept on site for inspection.



## Refractory Curing Procedure

Start Burner and burn for	5 minutes
Allow to cool for	15 minutes
Burn	5 minutes
Cool	15 minutes
Burn	15 minutes
Cool	15 minutes
Burn	15 minutes
Cool	15 minutes
Burn	30 minutes
Cool	15 minutes
Burn	30 minutes
Cool	15 minutes
Burn	1 hour
Cool	15 minutes
Burn	1 hour
Cool	15 minutes
Burn	2 hours
Cool	15 minutes
Burn	3 hours
<b>Total Time</b>	<b><u>12 hours</u></b>

*There will be hairline cracks and minor scaling of the refractory when curing is completed. This is a normal result of the curing process*

# Inspection Procedures

Periodic inspection and servicing of the units is required to maintain optimum operation

We recommend the following schedule:-

Assuming the unit has been installed and tested by a suitably qualified gas/ electrical engineer.

**1<sup>st</sup> service** (post installation check up) after 50 hours of operation

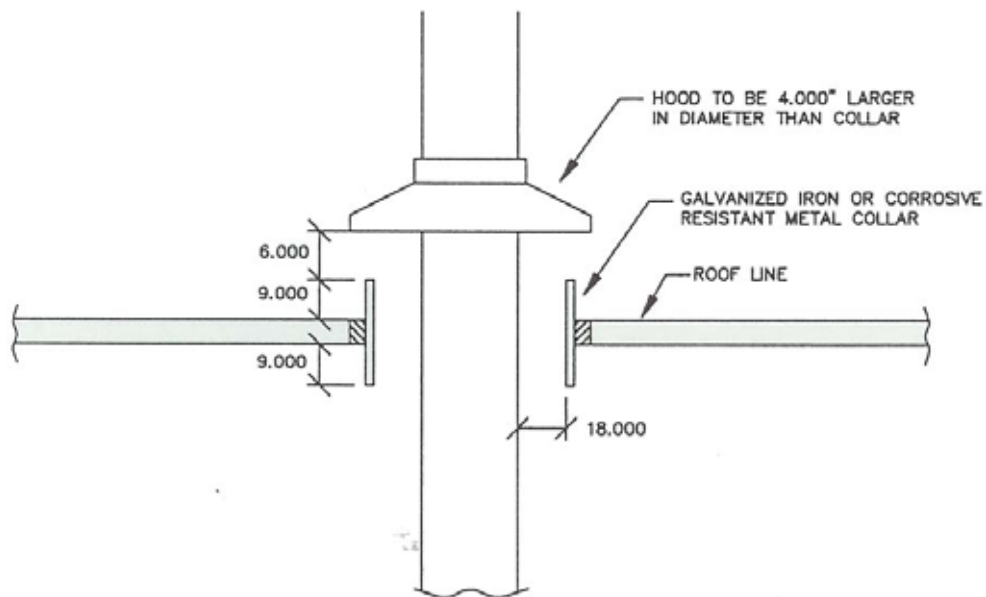
**Regular service/ inspection** 1000 hours or annually, whichever is the sooner.

## **Service / Inspection procedures should include.....**

1. Check for leaks in all pipe-work and gas supply
2. Check for leak tightness of the unit ensuring all waste gas travels up the chimney output
3. All safety shut off valves and safety guards should be inspected.
4. A temperature and combustion analysis should be performed to ensure that there is no deterioration of incinerator performance.
5. Timers should be calibrated to ensure that they reflect a true reading and ensure that the safety cut off applies.

## COMBUSTIBLE ROOF CONSTRUCTION DIAGRAM

1. DIMENSIONS ARE MINIMUM DISTANCES
2. BASED ON NFPA 82
3. CONSULT LOCAL BUILDING CODES
4. STOCK SHOULD EXTEND NOT LESS THAN 10 FT. HIGHER THAN ANY BUILDING WITHIN 25 FT.



## **Limited Warranty**

### **Warranty**

Inciner8 Ltd, warrantor, warrants to the original purchaser of one (1) year from date of purchase or delivery to original purchaser, products manufactured / supplied by it which are installed and operated according to Warrantor's instructions that are furnished and/or are available to purchaser upon request, and installed according to other applicable federal, state, government and local codes or regulations and upon substantiation that said products were installed correctly, were not abused and are defective. The exact nature of said warranty and exclusive remedy for breach by warrantor is as follows:-

Warrantor will refund or credit to purchasers account an amount equal to the original purchase price or at warrantors option repair or replace at Warrantors expense, products found to be defective in workmanship or material. If a problem occurs which the purchaser believes is covered by his warranty, then the purchaser shall contact the seller giving the seller sufficient information to enable a resolution of the problem. If the seller is unable or unwilling to resolve the problem and the purchaser is still convinced that it is covered by the warranty the purchaser should contact the manufacturer at the address listed in the following paragraph and provide a description in writing of the problem and the attempts made to resolve it. 'Seller' as used herein shall mean the dealer or distributor from whom the product was purchased.

No product or part thereof may be returned pursuant to this warranty without first receiving specific written permission to do so. All requests should be addressed to Inciner8 Ltd, Unit 9, Shakespeare House, 37-39 Shakespeare Street, Southport PR8 5AB, United Kingdom, requesting specific authority for returning merchandise pursuant to this warranty with reasons for the request.

### **Limitations**

Products which are abused or neglected are not covered under this warranty, including overfilling units or covering burner outlets (please refer to manual for usage instructions). Warrantor shall not be responsible for the costs of removal or reinstallation of its products and shall not be liable for transportation costs to and from its plant. Further. Warrantor shall not be liable for replacement, repair or refund for component parts not manufactured by it.

Use of parts for modification or repair of the unit or any component not authorised or supplied by Inciner8 Ltd, specifically for this product shall void the warranty.

Implied warranties of merchantability and fitness for a particular purpose are limited to the same period of time as this express limited one (1) year warranty and are specifically disclaimed thereafter.

***Inciner8 Ltd shall not be liable for any incidental, consequential, special or contingent damages or expenses arising directly or indirectly from any defect in the product hereby warranted.***

The warranty shall be VOID if solvents or other highly inflammable fluids such as but not limited to Benzene, methylethyl, ketones, toluene, xylene or naptha are burned in or mixed with oil for burning in used oil fired burning heaters or furnaces.

For those states that do not allow limitations on how long an implied warranty lasts, this limitation may not apply. Similarly, for those states that do not allow the exclusion or limitations of incidental or consequential damages, the above exclusions of indirect, incidental, or consequential damages may not apply.

This warranty gives you specific legal rights and you may also have other rights, which vary from, state to state.

Inciner8 Ltd is not responsible for any undertaking, representation, or warranty made by any dealer, distribution, or other persons, beyond those expressly set forth in this warranty.