

# TECHNICAL INTRODUCTION

One of our newest systems is the i8-500, It uses groundbreaking design and uses features found on our much larger machines. The i8-500 took over two years to develop and was designed from the ground up to offer impressive burn rates and large batch sizes while still achieving some of the lowest emissions in its class. It features a large loading chamber which can easily accommodate a full carcass or 350kg per batch of other waste.



#### LOAD CAPACITY

Inciner8 uses four main size guides within our comprehensive range to differentiate our models, from S to XL. This allows us to provide you with a machine that perfectly fits your needs and your waste stream.



#### **CORETEX INSULATION**

Coretex insulation - Triple insulation Coretex technology uses a combination of high-density insulation board, custom refractory concrete and thick steel to deliver the ultimate incineration insulation.



#### **TOP LOAD**

Top loading allows the waste to be dumped in from above making it easy to access for trucks and machinery. It also allows additional extras such as bin tippers and autoloaders to be used within the operation to improve efficiency and incineration times.



#### **HYDRAULIC DOOR**

We manufacture our incinerators from heavy-duty steel, hydraulic doors are fitted to some of our larger models to make it easy and effortless to open and close the chamber doors via the control panel making light work of continuous loading.

Designed and manufactured in Britain to ISO 9001 accredited quality assurance standards. Our machines are widely used across a wide range of sectors, in the UK and around the world, including municipal waste management, manufacturing, mining, and hospitality, as well as tackling serious waste management challenges, including controlled drug disposal, humanitarian response and marine waste.



#### **i8-500G FEATURES**

- Cladded for heat retention, cool touch & hygiene control
- Rapid, complete and efficient medical waste disposal
- Patented safety handle for easy access to chamber
- High quality refractory lining and insulation
- Easy to use CE5 control panel
- Programmable temperature control for complete combustion
- Secondary chamber\*\* with 2 second retention time
- Fast pre-heat and continual high temperature performance
- Low energy consumption levels



<sup>\*</sup> Our primary and secondary combustion chambers are constructed from superior grade steel and state-of-the-art monolithic concrete refractory with a unique concave design to prevent cold spots and maximize heat retention during the start-up and combustion processes. When the secondary burner is activated a flame curtain is created which ensures the thermal decomposition of smoke and harmful emissions to produce a clean, odourless vapour exiting the chimney stack.



model: **i8-500G** 

## TECHNICAL BREAKDOWN

# model: **i8-500G**

#### **HT THERMOCOUPLES**

Independent control of primary and secondary temperatures via the control panel.

#### **SECONDARY CHAMBER**

Retains and re-burns the exhaust gases for minimum of 2 seconds at 850°C.

## **CHIMNEY STACK**

Stainless steel stack for longevity. Fitted with a Velocity Cowl as standard.

#### PRIMARY CHAMBER

Chamber designed for maximum air flow and circulation which in turn improves efficiency and total burn time.

## SAFE USE HANDLES

Easy to open and close loading door. Designed to increase operator safety.

## **COOL TOUCH CLADDING**

Steel cladding to reduce risk of infection and increase longevity of system.

#### **LOW NOX BURNERS**

These are some of the cleanest, most efficient burners available today. These can be supplied as gas or oil fired.

## **HOW INCINERATION WORKS**

Incineration is a waste treatment process which utilizes the combustion of organic substances contained within materials to convert waste into ash, heat and flue gas. The ash residue is mostly formed by inorganic constituents of the waste which may take the form of solid lumps or powder.

Heat produced by the incineration process can be fed into a heat exchanger to produce hot water or air which can be used for cleaning or heating purposes. The remaining flue gases are passed through pollution control devices in the form of a secondary combustion chamber or additional filtration (if required) and then expelled to atmosphere.

#### **APPLICATIONS**

Our versatile range of medical incinerators are designed for a wide range of waste types. This particular model benefits from a front loading design and very simple operation process. Ideal as a stand-alone machine where limited staff are available to operate.

- General waste
- Plastics & packaging
- Camp waste
- Domestic waste
- Industrial Waste
- Hotels & Resorts
- Mining Operations
- Wood/Construction
- Document Waste









# **TECHNICAL SPECIFICATION**

OPERATIONAL SPEC		PHYSICAL SPEC		
Combustion Chamber Volume (m³)	5.0m <sup>3</sup>	Assembled L/W/H (mm)	5000 x 2800 x 5750	
Burn Rate (Kg p/h)	Up to 300Kg	Assembled Weight (Kg)	18000kg	
Fuel Consumption (Ltrs p/hour)	30-40 ltrs	Door Size (mm)	3500 x 1500mm	
Time To Temp	45-60 mins	Thermocouples (Qty)	4	
Gas retention Time (Seconds)	2 secs	Steel Thickness (mm)	4mm	
Loading Method	Top Load	No. Of Burners	4	
Fuel Options	Light Oil or Gas/LPG	Refractory Composition	Coretex	
Electricity Supply	110v or 230v	Operating Footprint	46.4m²	
Control Panel (IP Rating)	IP57	Cool Touch Cladding	Yes	
Heat Recovery	Yes	Viewing Portal	No	
Auto Ash Removal	No	Tertiary Air Fan	No	
Auto Loader Compatible	Yes	*The a	bove figures are guidelines ONLY.	
Remote Monitoring	No			
Ash Residue	3-5%			
Recommended Operational Temperature	850°C			

Ecoflam burners are renowned worldwide for providing high efficiency and reliable operation with significant energy savings and feature extreme ease of installation, maintenance and flexible boiler-burner matching. This model is fitted with low NOx burners as standard to ensure a complete and clean burn cycle, this reduces installation time and maintenance.

#### **ECOFLAM BURNER SPECIFICATIONS**

PARAMETER (1/2 HR AV)	LIMITS	MEASURED*
Total Dust	30mg/m <sup>3</sup>	12mg/m <sup>3</sup>
Sulphur Dioxide	200mg/m <sup>3</sup>	2.4mg/m <sup>3</sup>
Nitrogen Dioxide	400mg/m <sup>3</sup>	60mg/m <sup>3</sup>
Carbon Monoxide	100mg/m <sup>3</sup>	78.3mg/m <sup>3</sup>

\*The above figures are guidelines ONLY.

# **Ecoflam**

- MAX 1-12 have electrical frequency 50-60 Hz
- High efficiency fan ventilation system (HPV)
- Low NOx version class 3 with yellow flame
- Designed in compliance with current regulations
- ISO 9001 and VISION 2000 certification
- All burners are fire tested

NB: picture for illustration purposes only



model: **i8-500G** 

### **AVERAGE EMISSIONS / EU STANDARDS**

All of our secondary combustion chambers are designed to operate at 850 - 1200°C to re-burn waste gases which prevents smoke, odours and harmful emissions. Dioxins and similar gaseous components are destroyed by a combination of homogeneous high temperatures, excess oxygen levels and sufficient gas residence time in the secondary chamber which our incinerators achieve.

Emissions are largely a product of the waste materials therefore care should be taken when selecting the most appropriate method of pollution control to ensure compliance with your local emissions standards, please discuss this with our sales team if you aren't sure.

# CALL INCINER8 AND START BUILDING SOLUTIONS TO YOUR WASTE CHALLENGES TODAY! +44 (0) 1704 884020 OR EMAIL SALES@INCINER8.COM

