ENVIRONMENTAL

COMBUSTION TECHNOLOGIES

PRODUCT BROCHURE

ECOWASTE

INCINERATORS

Reliable. Efficient. Sustainable.



www.ectechltd.com

INTRODUCTION

ECOWASTE
INCINERATORS

The Ecowaste range has been purpose-designed to deliver a versatile, compact, and highly efficient solution for the safe destruction of waste at source, helping organisations reduce their environmental footprint while maintaining the highest standards of operational reliability. By treating waste where it is generated, Ecowaste incinerators minimise transportation requirements, lowering associated emissions, costs, and biosecurity risks.

Designed and manufactured in the UK to ISO 9001:2015 accredited quality standards, ECT incinerators combine robust engineering with proven combustion technology to ensure consistent performance, long service life, and dependable operation in demanding environments.





The Ecowaste range supports responsible waste management across a wide variety of sectors worldwide, including municipal waste management, manufacturing, mining, agriculture, hotels and resorts, and critical healthcare applications such as hospitals and medical facilities.

By enabling compliant, efficient, and environmentally responsible waste destruction, the Ecowaste range helps organisations meet regulatory obligations, improve sustainability credentials, and take control of their waste management processes with confidence.

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ECOWASTE INCINERATORS

APPLICATIONS & WASTE TYPES

Plastics & Packaging	Clinical
Camp Waste	Treated
Domestic Waste	Anatomical
Industrial Waste	Cytotoxic & Cytostatic
Hotels & Resorts	Offensive & Hygiene Waste
Mining Operations	Medicinal
Wood & Construction	Animal Byproducts & Carcass
Document Waste	Agricultural Waste
Refugee & Aid Camps	Organic Waste





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KEY FEATURES

ECOWASTE
INCINERATORS

COMPACT FOOTPRINT WITH LOW OPERATING COSTS

Designed to maximise performance within a minimal footprint, the Ecowaste range delivers efficient waste destruction with significantly reduced fuel and energy consumption, ensuring low long-term overheads.

ERGONOMIC & SAFE FRONT-LOADING DESIGN

Waste is loaded via a manual hinged door engineered for operator safety. An integrated safety interlock and high-temperature rope seal provide superior combustion control and protection during the loading process.

ADVANCED HOT HEARTH COMBUSTION TECHNOLOGY

This proven design ensures consistent destruction of diverse waste streams, including challenging high-moisture and high-fat materials, while maintaining high fuel efficiency and environmental standards.

HEAVY-DUTY STEEL CONSTRUCTION FOR LONG-TERM RELIABILITY

Each unit features a robust shell fabricated from 8mm and 10mm reinforced steel plate. Built in-house, these units are engineered to withstand demanding conditions for a long operational life.

HIGH-PERFORMANCE REFRACTORY LINING

The hot face is constructed from high-abrasion, low-cement castable material rated 60% above design temperatures. Stainless steel needle fibre reinforcement provides extra durability against thermal shock.

HIGH-EFFICIENCY COMPOSITE INSULATION SYSTEM

A multi-layer thermal barrier retains heat within the chambers to improve efficiency. This system lowers external surface temperatures, enhancing both operator safety and overall environmental performance.

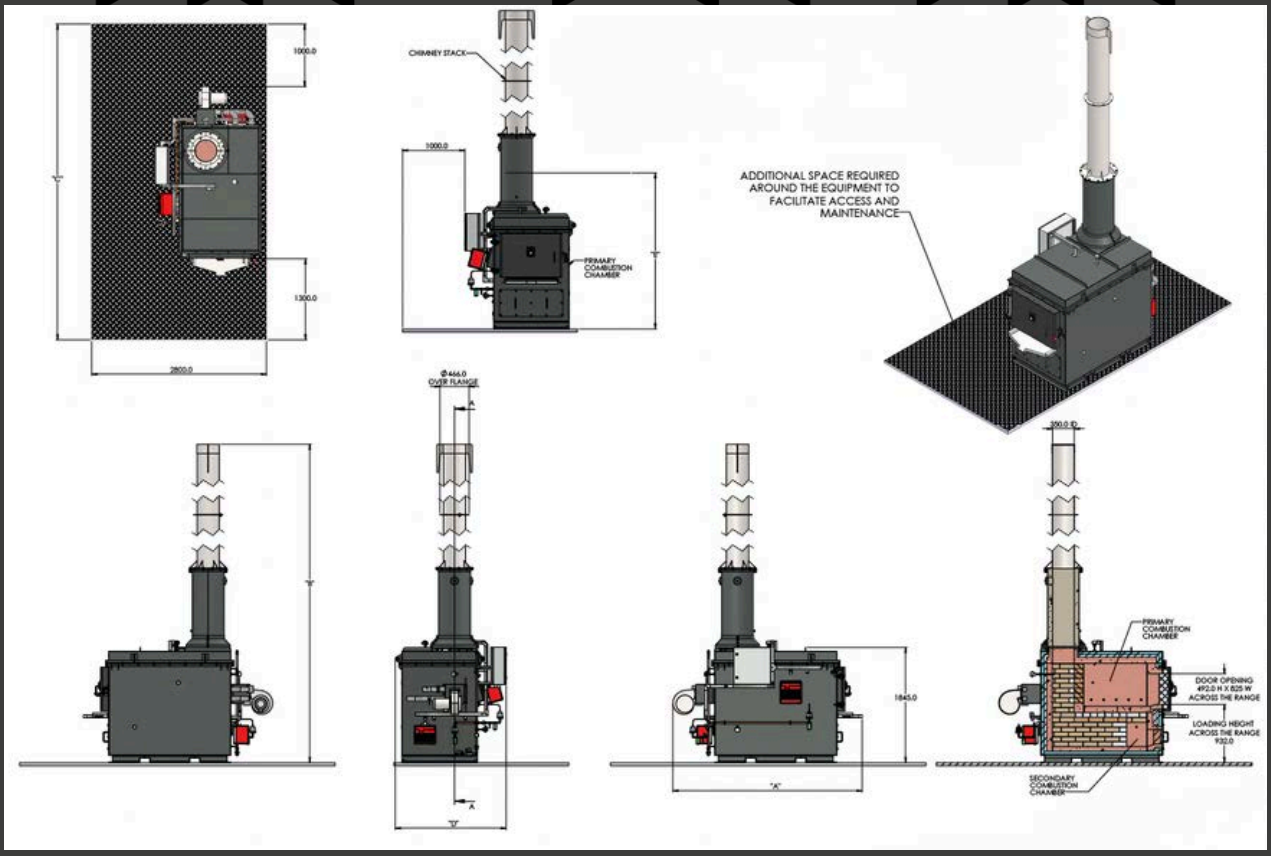
OPTIMISED HIGH-PRESSURE COMBUSTION AIR DELIVERY

Strategic high-pressure jets penetrate the waste bed for rapid ignition and burnout. This creates the turbulence necessary to maximise combustion efficiency and effectively destroy pollutants in the flue gas.

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RANGE PROPORTIONS

ECOWASTE
INCINERATORS



The **Ecowaste** range is available in four standard sizes that can each be tailored to specific waste volumes. This scalability provides a flexible, future-proof solution for a wide variety of operational requirements.

MODEL	INCINERATOR LENGTH	CHIMNEY HEIGHT	MIN. ROOM LENGTH	INCINERATOR WIDTH	MIN. CEILING HEIGHT	WEIGHT (KG)	FLOOR LOADING
ECOWASTE S	2533	6000	4556	1776	2500	3780	21 kN/m2
ECOWASTE M	3033	6000	5056	1776	2500	4730	20 kN/m2
ECOWASTE L	3533	7000	5556	1776	2500	5680	18.7 kN/m2
ECOWASTE XL	4033	7000	6056	1776	2500	6630	18.2 kN/m2

All dimensions provided are in millimeters (MM) unless otherwise stated.

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SPECIFICATIONS\\ECOWASTE | SMALL

ECOWASTE INCINERATORS

External	L x W x H	2533	1776	1845
Weight	3.78 Tonnes			
Primary Chamber	L x W x H	700	825	688
Chamber Volume	0.4 m3			
Door Aperture	W x H	-	825	492
Secondary Chamber Volume	0.52 m3			
Standard Chimney	6m - From Finished Floor Level (FFL)			

Burn Rate	Kg/Hr	35		
Max. Load Capacity	Kg	70		
Primary Burner	Qty	1	213 kW	G(GS)20
Secondary Burner	Qty	1	213 kW	G(GS)20
Fuel Types	Diesel, LPG, Natural Gas & Bio Fuel			
Comb Air Fan	Qty	1	1.5 kW	23-15FZ
Power Supply	1ph | 50Hz | 230V			
Max. Electrical Load	11 Amps			
Control Panel	Relay Logic (Standard)		PLC (Optional)	

To learn more about our class-leading Ecowaste S unit, please contact a member of the ECT Sales Team today.

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SPECIFICATIONS\\ECOWASTE | MEDIUM

ECOWASTE INCINERATORS

External	L x W x H	3033	1776	1845
Weight	4.73 Tonnes			
Primary Chamber	L x W x H	1200	825	688
Chamber Volume	0.68 m3			
Door Aperture	W x H	-	825	492
Secondary Chamber Volume	0.7 m3			
Standard Chimney	6m - From Finished Floor Level (FFL)			

Burn Rate	Kg/Hr	50		
Max. Load Capacity	Kg	100		
Primary Burner	Qty	1	213 kW	G(GS)20
Secondary Burner	Qty	1	213 kW	G(GS)20
Fuel Types	Diesel, LPG, Natural Gas & Bio Fuel			
Comb Air Fan	Qty	1	1.5 kW	23-15FZ
Power Supply	1ph | 50Hz | 230V			
Max. Electrical Load	11 Amps			
Control Panel	Relay Logic (Standard)		PLC (Optional)	

To learn more about our class-leading Ecowaste M unit, please contact a member of the ECT Sales Team today.

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SPECIFICATIONS\\ECOWASTE | LARGE

ECOWASTE INCINERATORS

External	L x W x H	3533	1776	1845
Weight	4.56 Tonnes			
Primary Chamber	L x W x H	1700	825	688
Chamber Volume	0.95 m3			
Door Aperture	W x H	-	825	492
Secondary Chamber Volume	0.88 m3			
Standard Chimney	7m - From Finished Floor Level (FFL)			

Burn Rate	Kg/Hr	60		
Max. Load Capacity	Kg	150		
Primary Burner	Qty	2	213 kW	G(GS)20
Secondary Burner	Qty	1	395 kW	RL(RS)34
Fuel Types	Diesel, LPG, Natural Gas & Bio Fuel			
Comb Air Fan	Qty	1	2.2 kW	23-15FZ
Power Supply	1ph | 50Hz | 230V			
Max. Electrical Load	20 Amps			
Control Panel	Relay Logic (Standard)		PLC (Optional)	

To learn more about our class-leading Ecowaste L unit, please contact a member of the ECT Sales Team today.

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SPECIFICATIONS\\ECOWASTE | XL

ECOWASTE INCINERATORS

External	L x W x H	4033	1776	1845
Weight	6.63 Tonnes			
Primary Chamber	L x W x H	2200	825	688
Chamber Volume	1.25 m3			
Door Aperture	W x H	-	825	492
Secondary Chamber Volume	1.06 m3			
Standard Chimney	7m - From Finished Floor Level (FFL)			

Burn Rate	Kg/Hr	75		
Max. Load Capacity	Kg	150		
Primary Burner	Qty	2	213 kW	G(GS)20
Secondary Burner	Qty	1	395 kW	RL(RS)34
Fuel Types	Diesel, LPG, Natural Gas & Bio Fuel			
Comb Air Fan	Qty	1	2.2 kW	23-15FZ
Power Supply	1ph | 50Hz | 230V			
Max. Electrical Load	20 Amps			
Control Panel	Relay Logic (Standard)		PLC (Optional)	

To learn more about our class-leading Ecowaste XL unit, please contact a member of the ECT Sales Team today.

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ABOUT US

ENVIRONMENTAL
COMBUSTION TECHNOLOGIES

Environmental Combustion Technologies (ECT) is a leader in the design, manufacture, and supply of advanced combustion systems, a total solutions provider specialising in human cremators, pet cremators, waste incinerators, and waste-to-energy applications.

ECT draws together a combination of seasoned industry experts possessing decades of collective experience with dynamic new talent drawn from diverse engineering disciplines. This powerful blend of deep-rooted knowledge and fresh, innovative perspectives creates a truly progressive and collaborative team.

With backgrounds spanning combustion, process, and environmental engineering, our team thrives on cross-disciplinary thinking. Our experienced professionals provide strategic insight and proven methodologies, while our emerging engineers challenge conventions and drive creative problem-solving.

What unites us is a shared vision: to pioneer the most sustainable engineering solutions for a rapidly evolving world. Together, we're committed to delivering cutting-edge yet practical innovations that meet today's challenges while safeguarding tomorrow's resources.

OUR VISION

To lead the transformation of the cremation, waste incineration, and waste-to-energy sectors through cutting-edge, sustainable engineering solutions that set new industry benchmarks for environmental performance and operational efficiency.

OUR APPROACH

We offer an integrated portfolio of high-performance systems and modular technologies engineered for real-world applications. Our solutions are designed to optimise environmental outcomes without compromising on reliability, cost-efficiency, or compliance.

By aligning technical innovation with the realities of operational requirements with consideration for infrastructure and resource constraints, we deliver tailored, future-ready systems that support long-term sustainability goals—without sacrificing practicality or performance.

At our core we are:



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ABOUT US\\TIMELINE

ENVIRONMENTAL
COMBUSTION TECHNOLOGIES

1996

All Crematory and Industrial Equipment and Engineering amalgamated and renamed as **Matthews Cremation Division.**

2008

Giust Environmental Machinery (GEM) becomes part of **Matthews Cremation Division** as an expansion strategy into the European market.

2010

Furnace Construction Company Limited split, with the new Furnace Construction Cremators Limited joining Matthews Cremation Division.

2012

Todaysure Ltd is acquired by Matthews International Corporation as an expansion strategy beyond the human cremation market.

2015

Matthews Cremation Division was renamed as **Matthews Environmental Solutions** to enhance our profile and better encompass the range of products and services provided by the division.

2024

The European divisions of **Matthews Environmental Solutions** were subjected to a management buy out resulting in the formation of **Environmental Combustion Technology Ltd**, a full-service thermal treatment plant solutions provider based UK.

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OUR ACCREDITATIONS

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