



MACRO  **TEC**
Engineering Simplicity

MacroBurn Incinerators

Macrotec designs and manufactures a range of high quality Incinerators for general waste, hazardous waste, animal carcasses and medical waste.

Lowest Emissions: Our Incinerators are designed to reduce emissions by controlling the rate of combustion in a three chamber process and by capturing particulate matter in a settling chamber resulting in industry leading low emissions.

Highest Quality: Macrotec is certified to ISO 9001:2008 Quality Management Systems and strive to achieve the highest quality products and services. Our Incinerators are designed to operate in the most harsh conditions with few moving parts and minimal maintenance required, making MacroBurn Incinerators extremely reliable.

MacroBurn Incinerators can be optionally fitted with Auto Feeders and Acid Gas Scrubbers, upgraded to PLC controls or supplied as a complete Containerised Solution.

Typical Uses

Macrotec manufactures Incinerator models for the following uses:

- General Waste
- Hazardous Waste
- Medical Waste
- Agricultural Waste
- Animal Carcasses
- Contraband
- Plastic
- Waste Water

Our Incinerators

Macrotec Incinerators are designed with “Quality meets Simplicity” in mind resulting in industry leading reliability. Through extensive research and development, Macrotec have developed technology to the highest standard available.

Refractory & Insulation: Each Incinerator is manufactured using dual layers of Refractory and Insulation Castable, forming a single monolithic structure of extreme strength and durability, with a service temperature of up to 1,500°C, Cold Crushing Strength of 110Mpa and expected lifetime of over 15 years. Heat loss is extremely low, with a thermal conductivity of only 0.2 W/mK, ensuring high energy efficiency.

PLC Panel: The PLC upgrade fully automates the Incinerator, leaving zero room for operator error. It adds a large HMI screen which displays the status of all components and creates the ability for remote monitoring and troubleshooting assistance by Macrotec technicians.

Auto Feeder: Models from our VI50 upwards are also available with an Auto-Feeder, which underfeeds waste into the Incinerator. This greatly increases the safety of the operator and prevents over feeding or underutilisation of the Incinerator. With feeding being completely automated a beneficial side-effect is higher efficiency and fuel savings.

Pre-Heated Combustion Air: Customers wanting to reduce fuel usage can optionally fit Pre-Heated Combustion Air on any MacroBurn Incinerator. The system is designed to recover heat from waste gasses, increasing fuel efficiency and ensuring complete combustion due to more stable high temperatures.

Acid Gas Scrubber: All models can also be fitted with an Acid Gas Scrubber that injects a neutralising agent into the Incinerator drastically reducing acid gasses and further lowering emissions.

Containerised Solution: Macrotec also offers complete Containerised Solutions for all models up to our V100. The Incinerator is completely pre-installed with minimal site-work required. The container is also shipping legal and is the optimal solution for remote areas. Safety features also include a fire valve, normally closed valve, fire insulation, diesel run-off and an industrial extraction fan.

Containerised Incinerators

Our containerised incinerators makes it extremely easy and cost effective to transport and install equipment in remote areas, or where there are no existing buildings. Each incinerator is completely pre-installed in a 20ft GP container, including electrical wiring, components, lights and extractor fans. Minimal civil work is required with only the power remaining to be connected and the chimney erected. Fuel is supplied from an externally mounted fuel tank which is quickly erected to ensure safe operating conditions.

In areas with unreliable or no power, units are available with generators also pre-installed as an additional option. Containerised units are available from our V23 to V100 models.

Safety is paramount, with the following features included:

- Fuel supply conforming to BS EN746-2
- Diesel run-off below burners
- Industrial extractor fans

Macrotec's stand-alone Incinerators offer an efficient way to dispose of a wide range of wastes while reducing the environmental impact. Incinerators have been designed to reduce every possible threat to the environment, while providing a reliable and cost effective solution. We make use of advanced designs in our combustion plant, which regulates the combustion rate, temperature in the different chambers, turbulence, gas velocities and supply of oxygen.

Quality

Quality is a critical aspect to everything we do at Macrotec. From first contact with a customer, until decommissioning of equipment decades later, we strive to deliver great quality products and services.

To ensure our focus is always on quality, we are certified to ISO 9001:2008 Quality Management Systems, with stringent checks on everything we do. This goes beyond checklists and QCP's, to strict control of manufacturing and processes, even to the thickness of the coating applied to every single product.

Our ethos is straightforward: Quality, Reliability, Simplicity, Value and Technological Expertise.

Environmental Impact

Macrotec Incinerators have been designed to combat every possible threat it could pose to the environment. We make use of advanced designs in our combustion plant, which regulates the combustion rate, temperature in the different chambers, turbulence, gas velocities and supply of oxygen.

The Secret to our Low Emissions:

- **Complete Combustion:** This is achieved by controlling the level of oxygen, temperature, the time gasses spend in each chamber and the amount of turbulence that ensures that volatiles and heat are thoroughly mixed.
- **Rate of Combustion:** This is done by controlling the four factors that control the rate of combustion, namely; a modulated supply of heat and air that results in heat, air, and hot gasses moving in a horizontal vortex from the primary to secondary chamber; a portion of induced negative air in the primary chamber; air for the secondary chamber being induced by Venturi Action and the use of natural draught chimneys.
- **Large Settling Chambers:** These chambers remove particulate matter or flakes of incombustible material that is contained in the gas stream.
- **Acid Gas Scrubber:** Neutralises acid gasses and helps in the prevention of dioxins and furans.

Model Range

Our stand-alone Incinerator range

	V23	V32	V50	V70	V100	V150	V220	V330	V500
Capacity Data									
General waste (kg/h)	23	32	50	70	100	150	220	330	500
Medical Waste (kg/h)	15	20	33	45	65	100	145	220	330
Animal Carcass (kg/h)	-	-	30	40	60	90	130	195	300
Plastic (kg/h)	12	17	28	38	55	80	120	180	275
Incinerator Dimensions									
Length (mm)	1060	1060	1330	1430	1660	2020	2430	2870	3400
Width (mm)	1080	1080	1405	1610	1820	2280	2400	3000	3570
Height (Incinerator body) (mm)	1502	1502	1615	1776	1975,5	2161	1536	2989	3463
Loading door size (mm)	250 x 350	250 x 435	450 x 450	450 x 450	600 x 600	600 x 600	600 x 600	750 x 750	750 x 750
Weight (kg)	1850	2050	3600	4700	6600	9900	14200	23000	36500