

International Leaders of Incineration Solutions

# Advanced Solutions For Hazardous Waste



# Securely manage clinical waste with an Addfield medical incinerator.

Since 1982 Addfield has been leading in the design and manufacture of the most trusted and reliable waste incinerators available.

Welcome to the Addfield range of medical incinerators. We are all very proud of the positive impact that these machines have been able to achieve globally, completely transforming the way that many forms of hazardous clinical waste are now disposed of.

Delivering genuinely life-changing benefits to the communities that they are installed in, whilst providing a reliable source of waste disposal for what could be decades to come. I am sure that you may have many questions on just what makes Addfield the supplier of choice for many prestigious organisations. Hopefully, through the next few pages, you will be able to find the answers to many of these.

For 40 years we have been constantly developing and manufacturing what I believe are the most advanced, reliable, and efficient solutions available for managing medical waste. I am confident that you will be able to see how, as well as providing a secure source of disposal you can also achieve visible reductions on operating costs and provide a safer facility for operators.

In 2020 we saw first-hand the need to view medical waste differently. As the grip of Covid 19 tightened around the world we prioritised the production of medical incinerators. Global lockdowns and restrictions reinforced the importance of managing waste at source and we adapted to support remote installations with our dedicated online training program enabling machines to be correctly installed



anywhere regardless of travel restrictions.

Our client list includes many of the world's largest international aid agencies and prestigious government and medical bodies. When our clients choose to invest in an Addfield incinerator it's a decision that lasts for many years into the future. Our machines are built to work hard, having an average life expectancy of over 20 years. They are constructed from premium materials by a team of highly experienced professionals and we will be here for you with our exceptional support and service for the life of every machine.

What really makes an Addfield machine stand apart from others is our fully bricked refractory lining, finishing off our advanced triplelayered refractory. This approach delivers incredible thermal efficiency requiring up to 40% less fuel to operate compared to our concrete-lined competitors. I am proud to say that whatever you need and regardless of where you are that we have the machine that genuinely will help. Supported by our global network of engineers and distributors we have installed machines in over 145 countries and are welcoming new territories all the time. I look forward to hearing from you soon.

> Derek Carr, MD. Addfield Environmental Systems



# HOSPITAL WASTE INCINERATION

## What makes an Addfield incinerator so reliable?



#### Thick steel construction:

Exclusively using high grade, 10mm thick, British mild steel makes Addfield incinerators the strongest on the market.

#### Multi-layered refractory:

Brick based triple layered and 180mm thick, preventing heat loss, reducing fuel costs and improving operator comfort.

**Optimised loading:** Ergonomic loading for increased waste throughput and maximum efficiency. Available with manual and automatic options.

## The modern solution for hospitals and clinics.

Easy to install with a life expectancy of over 20 years. Addfield medical incinerators have been developed to deliver a consistently high-quality disposal of all mixed medical and clinical waste.

Incorporating optimised primary and secondary chambers, achieving temperatures exceeding 1100°C to ensure an environmentally sustainable odour and smoke free incineration.

Reducing waste by 97% volume, whilst safely sterilising any glass or metals ready for recycling.

Delivering reliable after service to support every machine, through our global network of engineers, alongside dedicated online training courses to ensure that our partners are able to benefit from clean waste disposal for many years into the future.

The ideal choice for hospitals, health clinics and vaccination centres worldwide.

#### Addfield MP200 Incinerator









Cytotoxic & Cytostatic Waste

Domestic (Municipal) Waste

Approved supplier to international aid agencies including; WHO, UNICEF & MSF.

#### Hardwearing finish:

Using an advanced heat treated two pack paint system. Protecting the incinerator against harsh elements for many years to come.

#### Enclosed gas cleaning chamber:

Removes all smoke and odours by heating the gases to over 1100°C in an environmentally friendly process.

#### Intuitive controls:

Easy to use one touch operation. Includes data-logging as standard for automatic monitoring.

#### **Automatic Loading**

Easy to load manually, whilst having the option to incorporate automated loading systems. Designed to streamline the process and improve efficiency. Options are available including Ram Chargers, Bin Tippers and Top Hoppers. Generally found on larger machines allowing easier loading of medical waste bins up to 1100 litres in capacity.

# Choosing the right incinerator

Recognised globally for our expertise and quality. We work side by side with international aid agencies, and government organisations, delivering solutions that really transform communities. Supplying purpose-built incinerators based around the exacting requirements of all clinical waste to be disposed of. All of our medical machines are suited for hazardous waste. The MP and C range are our most popular machines to choose from. Both constructed with the same thick premium steel and multi layered refractories, however there are some key differences. Read on to discover what type of medical incinerator is your best choice.



#### Containerised

Self-contained installations which are able to be installed and commissioned rapidly in most environments. The structure provides housing and protection for the operational life of the machine, plus a clean, safe working environment for the operative and the community. A highly cost effective and efficient facility for medical waste disposal in developing countries.



### **Uninterrupted** Power

Often installed in highly remote locations, all of our incinerators have the option of being supplied with backup energy sources, including diesel powered electricity generators, uninterrupted power supplies and solar power options. This ensures that the machines can operate securely without risks in regions with intermittent power.



# **MP100 - MP500**

The MP (Medical/Pathological) is available in five sizes, processing between 50 - 600 kg of medical waste per day.

'Hot Hearth' primary chamber delivering underfloor heating, beneficial for higher moisture pathological waste.

Boosting efficiency through enabling 360° heating, speeding up the process through removing cold spots.

The ideal solution for category 2, 3 and 4 types and those less than <3000Kcal commonly installed for small hospitals, vaccination centres or health clinics.

Standard Specification	MP100	MP200	MP300	MP500	C100	C200
Capacity per day (kg)	10 - 150	150 - 300	300 - 450	650 - 750	600 - 1600	1600 - 3200
External Dimensions L $x$ W $x$ H (m)	2.43 x 1.15 x 1.95/3.82	2.83 x 1.15 x 1.95/3.82	3.23 x 1.15 x 1.95/3.82	4.03 x 1.15 x 1.95/3.82	3.73 x 2.05 x 3.60/5.40	3.75 x 4.95 x 3.80/7.40
Internal Chamber L x W x H (m)	0.80 x 0.67 x 0.70	1.20 x 0.67 x 0.70	1.60 x 0.67 x 0.70	2.40 x 0.67 x 0.70	3035 x 1170 Ø	3035 x 1353 Ø
Internal Chamber Volume (m <sup>3</sup> )	0.38	0.57	0.76	1.13	3	4.35
Loading Options	Front Manual Automatic options				Front/Top Manual and Automatic Options	
Refractory Type	180mm High Grade Brick				156mm High Grade Brick	
Burn rate (per hour)	≤50kg				≤100kg	≤200kg
Weight (Approx Tonnes)	2.8	3.2	3.6	5	8.6	12



## C100 - C200

The C (Clinical) range is available in two chamber sizes, achieving burn rates of 100kg/h and 200kg/h.

A higher capacity approach with a large primary chamber allowing lower density, high energy waste to be disposed of.

3/4 Burners located in the primary chamber all directing the heat into the heart of the waste.

Rounded primary chamber with air injection/curtains for active circulation of energy eliminating cold spots inside the chamber.

Designed to be able to manage mixed medical waste containing much higher quantities of plastics.

## **Advanced Sensors**

achieved through the advanced control system optimising the incinerator throughout the burning process.

Combining Oxygen and Emission sensors across the range enables Addfield to ensure environmental





#### **Micro-incinerator Options**

Highly compact range of incinerators designed to provide reliable disposal of medical waste in small quantities with

Ask us about the Labmaster, AES100, AES200 and the Barrel Burner Pro, part the requirements we have the solution

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Contact us

Tel +44(0)1543 571280 Email: sales@addfield.com or visit www.addfield.com









# Advanced gas cleaning Venturi.

The Addfield 'Venturi' system is a highly developed, stainless steel engineered, flue gas scrubber. Built to provide additional cleaning of exhaust gasses, removing and neutralising particulates and airborne by-products.

Regulations regarding medical waste vary by region. In most instances you will find our primary and secondary incineration process is more than sufficient to protect the environment and clean the gasses prior to releasing them back into the environment. However in situations where the waste may contain higher traces of plastics and other more complex materials, additional technology may be required. As leaders in the sector we have established a selection of flue gas cleaners to provide the results that you may require. Most popular of these solutions is the 'Venturi' wet scrubber system which you can find installed in many countries alongside our machines.

Cleaning at a microscopic level, this system is able to be scaled to fit all sizes of medical incinerators and can commonly be found



on the MP500 and C100/200. Reliably removing particulates and neutralising airborne by-products created through the combustion process.

The process diverts the flue gas down three main stages. Beginning in the 'Quencher', where the liquids and gasses are merged and temperatures drop. Leading to a Venturi section, increasing the velocity. It then enters the 'Throat' and is forced through at very high speeds, shearing the water, breaking it down into thousands of tiny particles. Finally entering the 'Diverging Chamber' where the minute particles of water strip gaseous and particulate pollutants, transporting them into settling tanks. The remaining cleaned exhaust gas can pass through the chimney and back out into the environment safely.

In addition to the full Venturi system we also have a selection of standard wet scrubbers to suit every machine that we have available.

## The environmental solution to infectious waste!

Medical incinerators are an essential tool for combating disease across the world. Installed at hospitals, health centres and clinics, transforming the way that this waste is disposed of and the environmental impact on the communities.

Capable of being operated without relying upon a complicated infrastructure. Compact enough to be installed at any location. Delivered in a variety of flexible configurations including containerised, able to be operated fully independently.

Operating from their own fuel source and generators means that no matter how remote a location is, safe disposal is possible.

Developed to be quick to install, easy to operate and environmental in operation.



## Case Study: MP100 - Mauritania

15 MP100 medical waste incinerators were chosen by UNICEF for hospitals across Mauritania. Originally to help combat measles. Once delivered and ready for commissioning a new virus had taken over the news and Covid 19 had become a global pandemic.

Perfect timing for the hospitals that were preparing for the dramatic increase in contagious waste that would be heading their way. We were able to act before the first global lockdown, calling upon our engineers located across Africa as well as sending one of our senior representatives to manage the project. Travelling with a suitcase full of additional spare parts to ensure that each machine was fully prepared to be able to operate throughout the unfolding crisis.

Before these installations medical waste across these sites was often cast onto common ground or burned in



Addfield MP100 Incinerator

open fires and pits. A proven way in spreading disease rather than preventing it.

Now that these machines are installed, local engineers have been trained in servicing and a stock of parts has been made available. We know that the disposal of medical waste will be much safer in Mauritania for many years to come.

## Testimonials

We all found the staff at Addfield to be very friendly and they were very honest, not avoiding answering any questions, even questions that they may not like. The working



is very good the interaction is very good and informative. Muhammad Junaid Rashid

environment

Ever since the beginning of the purchase of the incinerator, Addfield has managed to meet all of our needs and has exceeded

regarding the quality of both client service and the machine. They are always willing to help us. Jorge Rivera



Very professional people - We got to see the manufacturing process and finished products which were top quality and above



expectations. The team is very welcoming and knowledgeable they help us with all of our projects to the fullest. Highly recommended!

**Kevin Boutros** 

## **Incineration Experts**

Working with international aid agencies and government bodies to develop the most reliable solutions for all clinical waste needs. We understand the complications of installations in remote and isolated locations. Therefore we ensure that all machines can be easily serviced and maintained. Plus we supply a full range of spares to keep machines in operation.

Full training to local engineers is provided as well as lifetime access to our international network of partners. Our engineers are some of the most experienced in the industry and help our customers to keep their machines operational from anywhere in the world.

All of our machines are designed and manufactured from our headquarters in the heart of England.



In addition to our traditional range we are also able to provide one of a kind bespoke solutions to suit all possible needs.

## International Leaders of Incineration Solutions

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