sales@addfield.com +44 (0)1543 571 280 www.addfield.com

Medical

C50

A compact and highly reliable solution for disposing of mixed medical waste.

The C50 medical incinerator is ideal for general clinical waste produced by hospitals and laboratories. Achieving a burn rate up-to 50kg/hr.

The C50 incinerator is a front-loading machine, specifically for easy loading of multiple medical waste types including biological, pathological, clinical and pharmaceutical.

Front loading allows for continual submission of medical waste during the incineration cycle, which delivers greater throughput during operation.

Specifically developed to deliver consistent results. Including an optimised secondary chamber to ensure a clean, smoke and odour free operation.

Machine Specification

External Length (mm)	1765
External Width (mm)	1100
External Height (mm)	1800
Internal Length (mm)	1565
Internal Width (mm)	700
Internal Height (mm)	800
Chamber Volume (m^3)	0.64
Weight (approx tonnes)	4
Max Load Capacity (kg)	256
Nominal Burn Rate UK* (kg/hr)	<50
Thermal Capacity (kW)	270
Power Supply 50/60 hz	210/230v
Control Panel	AIC
Fuel Types	Diesel, LPG, N-Gas
Fire Brick (Alumina)	42.5%
Insulation Fire Brick	Grade E23

*We reserve the right to change the specification, dimensions and quality of materials from time to time, so long as the alteration is minor or an improvement to the said product.

Primary Chamber

- Fully insulated internal refractory lining, constructed from high grade refractory brick ensuring a self-supporting, interlocking arrangement.
- Fully interlocked, manually operated, access door.
- Waste ignition burner, temperature controlled on-off, complete with internal air fans.
- Combustion burner, temperature controlled on-off, complete with internal air fans.
- Secondary combustion burner air fans with automatically controlled distribution to their designated area.
- Two temperature sensor mounting points.

Secondary Chamber

- Fully insulated internal refractory lining, constructed from high grade refractory brick and low thermal mass insulation.
- Secondary chamber burnout burner, temperature controlled on-off, complete with internal air fans.
- Integrated combustion burner air fans with automatically controlled distribution to their designated area.
- All combustion fuel pipework.
- All electrical components.
- One temperature sensor mounting point at the base of the exit flue ensuring the chamber reaches the necessary 1100°C minimum.

Recommended Waste Types

	Clinical Waste	✓
	Treated Waste	✓
	Anatomical Waste	✓
	Cytotoxic & Cytostatic Waste	✓
	Offensive/Hygiene Waste	✓
	Medicinal Waste	✓
	Domestic (municipal) Waste	✓

addfield Incinerate • Cremate

Addfield Environmental Systems Limited
Unit 9 | Zone 4 | Burntwood Business Park
Staffordshire | WS7 3XD | United Kingdom

© Addfield Environmental Systems Ltd. All information should be used as a guide only, specifications are subject to change without notice.

BRITISH BUILT

Medical

C50

A compact and highly reliable solution for disposing of mixed medical waste.

Waste Loading and De-Ashing

The C50 incinerator is designed for front loading only through the main access door. At the end of every incineration process ash should be discharged through this door onto the supplied catcher tray prior to being loaded for the next burn.

The Addfield Difference

- Pre-fabricated 8mm & 10mm robust mild steel casing, seam welded and suitably stiffened/ braced where necessary.
- Lightweight resilient refractory fibre insulation lid, providing a tight seal, giving excellent thermal efficiency.
- Primary and secondary chamber lining thickness 180mm, rated at 1650°C.
- Low thermal mass door lining, with removable roof and back plate for ease of maintenance.
- Paint finishing – The steel structures are painted using a two-pack high grade paint system.
- With an AIC Controller, customisable programs can cut your operations times.
- A 180mm thick refractory lining, using fire bricks and insulation bricks, improving thermal efficiency.

Additional Operation Equipment

Fuel Tank

Allowing you to operate the incinerator in all locations as well as providing a backup to your traditional supply. Available in 1000 to 5000 litre capacity. Fuel can be safely stored and monitored in close proximity to your incinerator.

De-ashing Tools

De-ashing tools increase the comfort of de-ashing the cremator. Associated with removing hot ash from the chamber of the cremator straight into the ash box, ready to be processed in the cremulator unit.

Venturi System

An advanced flue gas treatment system designed to further reduce dust, acid gasses, dioxins and furans. Highly effective the venturi is widely regarded as the leading treatment system in its field.

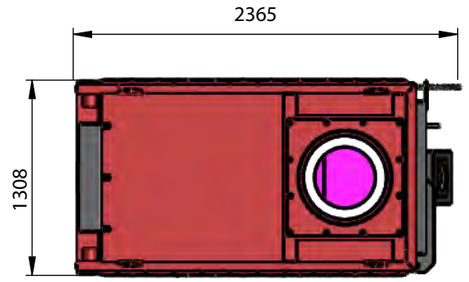
We reserve the right to change the specification, dimensions and quality of materials from time to time, so long as the alteration is minor or an improvement to the said product.

addfield Incinerate • Cremate

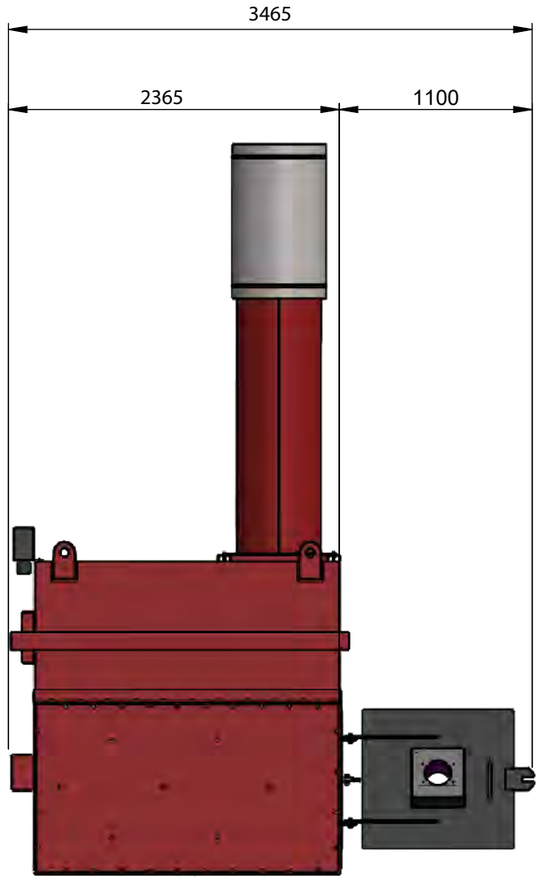
Addfield Environmental Systems Limited
Unit 9 | Zone 4 | Burntwood Business Park
Staffordshire | WS7 3XD | United Kingdom

© Addfield Environmental Systems Ltd. All information should be used as a guide only, specifications are subject to change without notice.

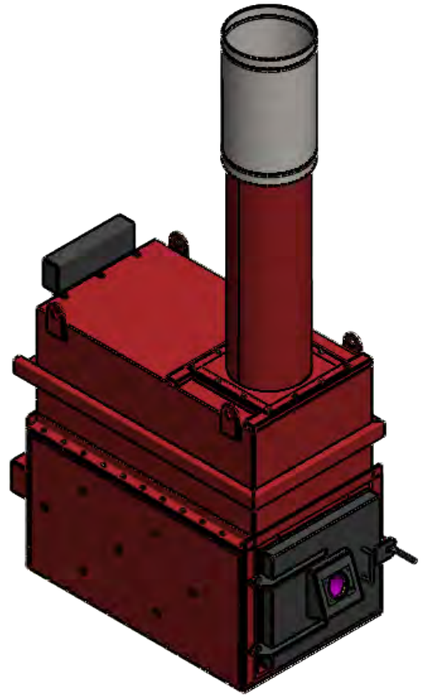
BRITISH BUILT



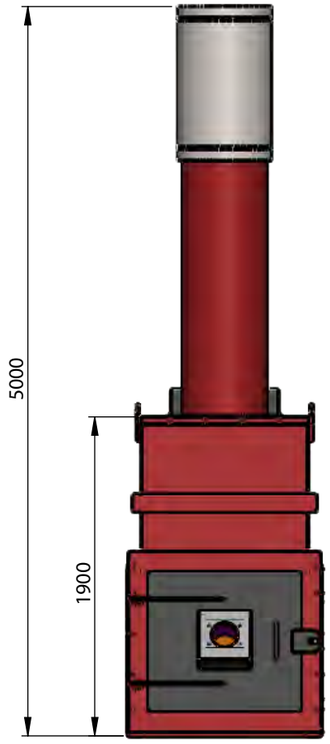
PLAN VIEW



SIDE VIEW
DOOR OPEN



ISOMETRIC VIEW



FRONT VIEW

MATERIAL:	FINISH:
N/A	N/A

WEIGHT: 2500 Kg

THIRD ANGLE PROJECTION
(UNLESS STATED OTHERWISE)

TOLERANCES UNLESS OTHERWISE STATED

FABRICATION		MACHINING		ANGULAR
2 to 30	± 1	0.5 up to 3	± 0.05	up to 400 ± 45'
>30 up to 120	± 2	>3 up to 6	± 0.05	>400 up to 1000 ± 30'
>120 up to 400	± 2	>6 up to 30	± 0.1	>1000 ± 20'
>400 up to 1000	± 3	>30 up to 120	± 0.15	
>1000 up to 2000	± 4	>120 up to 400	± 0.2	
>2000 up to 4000	± 6	>400 up to 1000	± 0.3	
>4000 up to 8000	± 8	>1000 up to 2000	± 0.5	
>8000 up to 120000	± 10	>2000 up to 4000	± 0.5	
>12000 up to 16000	± 12			
>16000 up to 20000	± 14			
>20000	± 16			

addfield
Incinerate • Cremate

T: +44 (0)1543 571 280
F: +44 (0)1543 571 173
E: sales@addfield.com
www.addfield.com

Addfield Environmental Systems LTD
Unit 9, Zone 4
Burntwood Business Park
Staffordshire
WS7 3XD

PROJECT:

STANDARD - C50

TITLE:

C50

DRAWING No.	REV
32-001-002	-
SHEET 1 OF 1	SCALE: 1:35 / A3

	DATE	DRAWN	CHECKED	APPROVED	COMMENTS	ZONES
D						XX
C						XX
B						XX
A						XX
-	03/02/2020	A.SINGH			FIRST ISSUE	

Addfield Environmental Systems LTD
This drawing and any information or descriptive material set out on it are the confidential and copyright propertyof Addfield Enviromental Systems, and MUST NOT BE DISCLOSED, COPIED, LOANED in whole or part or used for any purpose without the written permission of Addfield Enviromental Systems.

sales@addfield.com +44 (0)1543 571 280 www.addfield.com

Medical

WET FILTER REACTOR

The Addfield 'Wet Filter Reactor' system is a highly accessible, stainless steel engineered, flue gas scrubber. Designed to provide additional cleaning of exhaust gasses. Removing and neutralising particulates and airborne by-products.

CHAS | defra Approved | QUALITY ASSURED FIRM ISO9001:2015 | QUALITY ASSURED FIRM ISO14001:2015

The Addfield 'Wet Filter Reactor' is a flexible flue gas treatment system installed to reduce dust, acid gasses, dioxins and furans produced as a result of incinerating specific waste types. Cleaning at a microscopic level this system is able to be connected to any machine in the Addfield range. The scrubber system can be scaled according to the final specification of the incinerator to ensure that environmental results are consistently achieved.

Housed within insulated heavy duty stainless steel and consisting of three core parts. The converging, throat, and diverging section. Each essential to ensure that flue gasses are reliably cleaned before returning into the environment. This system produces a highly effective turbulent environment for flue gas scrubbing. Features Include:

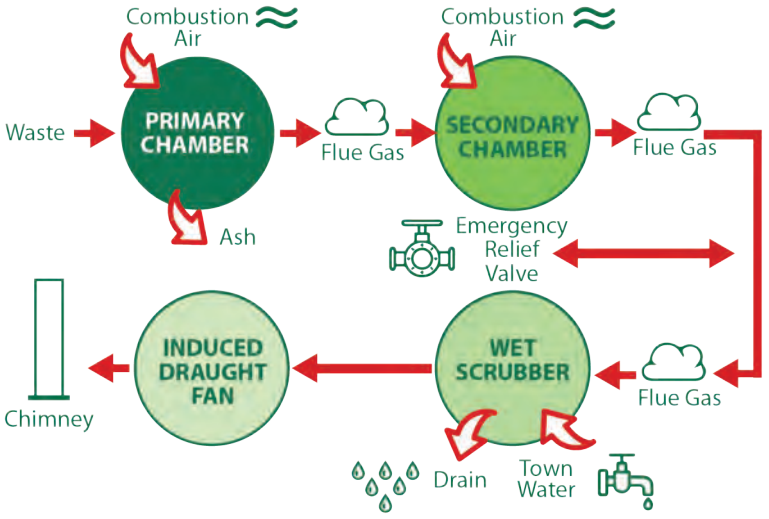
- Automatic Operation.
- Metered Water Delivery System.
- Stainless Steel Construction.
- Automatic Draught Control.
- Seam Welded Airtight Plenums.

360° Gas Cleaning

Measured quantities of water is injected into the exhaust gas. This water effectively washes and scrubs the exhaust gas. Collecting particulate and gaseous pollutants, which are drained at the base of the scrubber. System losses are overcome with an ID (induced draught) fan. This dynamically controls the flow of the system preventing inadequate scrubbing of the flue gas. The ID fan also prevents pressurisation of the incinerator by maintaining gas velocities within the scrubber at a constant rate.

Additional sensors on the inlet and outlet monitor combustion gasses in real time and report system status back to the main control unit.

Operational Flow Process



Machine Specification

Material Construction	304 Stainless Steel Venturi Mild Steel Painted Ducting
Emergency Relief System	Fail Open Spring Valve
Atomiser Construction	316L Stainless
Water Delivery	Electronic Solenoid Controlled
Drain System	1, Manual
Temperature Sensors	1
ID Fan	1, Automatic Speed Controlled
Draught Control Sensors	1
Site Utilities	Electricity 4 Wire Town Water

*We reserve the right to change the specification, dimensions and quality of materials from time to time, so long as the alteration is minor or an improvement to the said product.

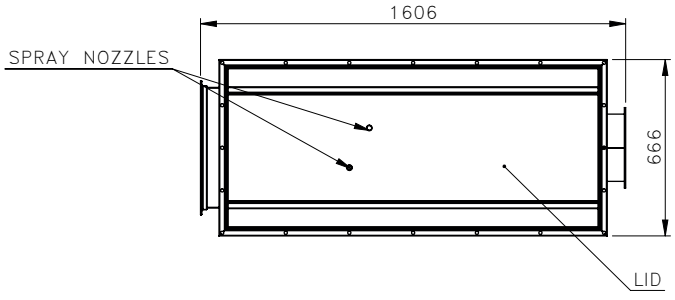
addfield Incinerate • Cremate

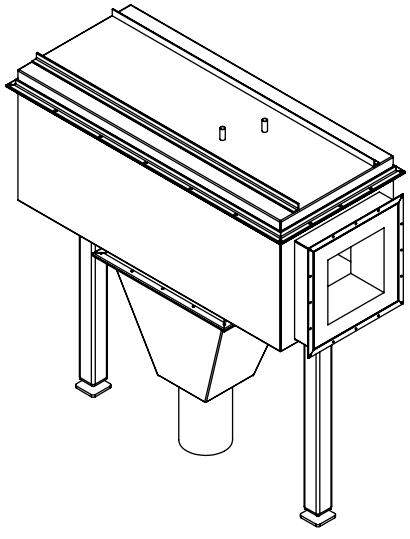
Addfield Environmental Systems Limited
Unit 9 | Zone 4 | Burntwood Business Park
Staffordshire | WS7 3XD | United Kingdom

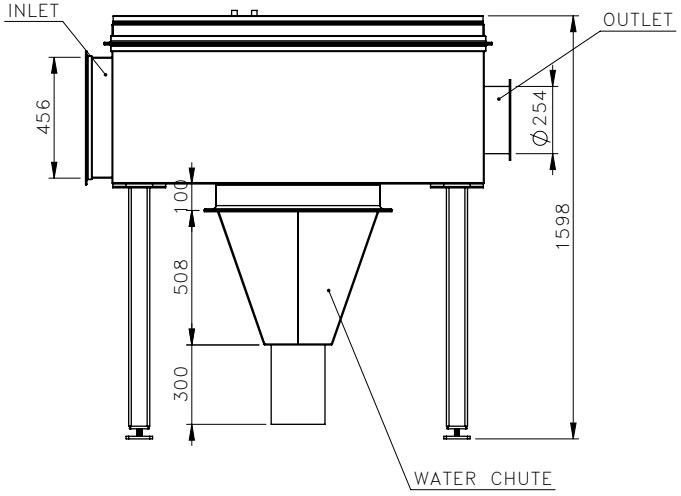
© Addfield Environmental Systems Ltd. All information should be used as a guide only, specifications are subject to change without notice.

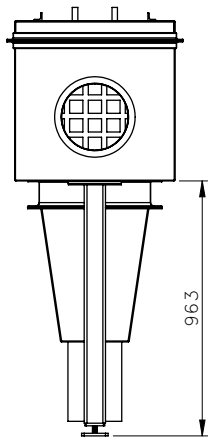
BRITISH BUILT

WET FILTER REACTOR









MATERIAL:	FINISH:
N/A	N/A

WEIGHT: N/A

THIRD ANGLE PROJECTION (UNLESS STATED OTHERWISE)

TOLERANCES UNLESS OTHERWISE STATED

FABRICATION		MACHINING		ANGULAR
2 to 30	± 1	0.5 up to 3	± 0.05	up to 400 ± 45'
>30 up to 120	± 2	>3 up to 6	± 0.05	>400 up to 1000 ± 30'
>120 up to 400	± 2	>6 up to 30	± 0.1	>1000 ± 20'
>400 up to 1000	± 3	>30 up to 120	± 0.15	
>1000 up to 2000	± 4	>120 up to 400	± 0.2	
>2000 up to 4000	± 6	>400 up to 1000	± 0.3	
>4000 up to 8000	± 8	>1000 up to 2000	± 0.5	
>8000 up to 120000	± 10	>2000 up to 4000	± 0.5	
>12000 up to 16000	± 12			
>16000 up to 20000	± 14			
>20000	± 16			

addfield
Incinerate • Cremate

T: +44 (0)1543 571 280
F: +44 (0)1543 571 173
E: sales@addfield.com
www.addfield.com

Addfield Environmental Systems LTD
Unit 9, Zone 4
Burntwood Business Park
Staffordshire
WS7 3XD

TITLE:

WET FILTER REACTOR GA

	DATE	DRAWN	CHECKED	APPROVED	COMMENTS
D					
C					
B					
A					
—	16/04/2021	KJOGANAH			ISSUE FOR MANUFACTURE

Addfield Environmental Systems LTD
This drawing and any information or descriptive material set out on it are the confidential and copyright propertyof Addfield Enviromental Systems, and MUST NOT BE DISCLOSED, COPIED, LOANED in whole or part or used for any purpose without the written permission of Addfield Enviromental Systems.

DRAWING No.	REV
3947–001–002	-
SHEET 1 OF 1	SCALE: 1:20 A3

Control Panel

Addfield Intelligent PLC Controller

Simple to operate adaptive control system for achieving optimal results from your machine.

Controller Features

The Addfield PLC Controller has been developed to provide you with a simple yet effective operational process. Designed around a touch screen HMI interface, and independent burner control buttons and switches.

The touch screen interface provides all of your essential operations at the press of a finger. Having pre-loaded programmes optimised for your individual requirements, waste type and operating regime.

Giving you instant access to live temperature readings for the primary and secondary chambers and remaining burn time to enable you to manage your incineration process more efficiently.

Simple to install with a plug and play interface which enables straight forward installation and maintenance.

Built in data-logging to automatically records you usage, timings and temperatures achieved. Archives all essential which is able to be exported to Excel through the removable USB drive.

Complete with the addition of an emergency stop button to instantly cancel all operations.

Key Features

- Plug and play design
- Zone ramp sequence multi zone controller.
- Incoming and outgoing cable terminations.
- Burner control gear.
- Interface relays and contractors.
- Temperature indication and control of the primary chamber.
- Temperature indication and control of the secondary chamber.
- Plant status indicators.
- Cycle status indicators.
- Fault status indicators.
- Operator interface.
- Data-logging.
- Schematic overview.
- USB Port.
- Emergency Stop button.

*We reserve the right to change the specification, dimensions and quality of materials from time to time, so long as the alteration is minor or an improvement to the said product.

Addfield Environmental Systems Limited
Unit 9 | Zone 4 | Burntwood Business Park
Staffordshire | WS7 3XD | United Kingdom

© Addfield Environmental Systems Ltd. All information should be used as a guide only, specifications are subject to change without notice.