

Medical



**MP-400** Designed to incinerate all medical and pathological (MP) waste.  
 The MP range is specially designed for safely incinerating hazardous high moisture biological red bag waste



The MP-400 is a large medical waste incinerator. Securely destroying a complete range of Medical, Pathological and Clinical waste. Designed and built along the latest advances in medical incineration.

Benefiting from Hot Hearth technology, efficiently recycling heat throughout and below the primary chamber, delivering complete 360° heating.

Unrivalled in it's field boasting a 40% reduction in fuel consumption compared to alternative solutions. The MP-400 is ideally suited for facilities of between 500-800 beds and equivalent.

| Machine Specification            |                    |
|----------------------------------|--------------------|
| External L x W x H (mm)          | 3040 x 1150 x 2100 |
| Internal L x W x H (mm)          | 2000 x 700 x 700   |
| Chamber Volume (m³)              | 1                  |
| Weight (approx tonnes)           | 4                  |
| Max Load Capacity (kg)           | 400                |
| Nominal Burn Rate UK* (kg/hr)    | <50                |
| Burn Rate [Export Only]* (kg/hr) | 50 - 75            |
| Thermal Capacity (kW)            | 480                |
| Power Supply 50/60 hz            | 210/230v           |
| Door Aperture                    | 2000 x 700         |
| Hot Hearth Principle             | Double Pass        |
| Fuel Types                       | Diesel, LPG, N-Gas |
| Control Panel                    | AI or PLC          |
| Insulation Board                 | 25mm Super-wool    |
| Insulation Fire Brick            | Grade E23          |
| Fire Brick (Alumina)             | 42.5%              |

\*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
- Heavily insulated internal refractory lining. Constructed from high grade refractory brick ensuring a secure self supporting, interlocking arrangement.
  - Manually opening, securely locking, access door with viewing port.
  - Automatic temperature controlled on-off waste ignition burner complete with internal air fans.
  - Hot Hearth Combustion Burner, temperature controlled on-off, complete with internal air fans.
  - Secondary combustion burner air fans, 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
  - Automatically controlled integrated combustion burner air fans.
  - Temperature sensor mounting point at the base of the exit flue ensuring the chamber reaches the necessary 1100°C minimum

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

Medical



# MP-400

Designed to incinerate all medical and pathological (MP) waste.



## Waste Loading and De-Ashing

The MP series of incinerators are ergonomically designed for easy and safe loading of all medical waste streams. Loading through the front facing door can be completed manually or with the aid of a hydraulic lifting table. The MP machines can be loaded multiple times throughout a cycle. At the end of every incineration process, ash should be discharged through the loading 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 door, providing a tight seal, giving excellent thermal efficiency.
- Primary and secondary chamber lining thickness 220mm rated at 1650°C.
- Premium paint finish - Steel structures are painted using a two-pack high grade paint system.
- Unique Hot Hearth technology enabling increased efficiency of incineration by providing additional heating below the chamber encouraging 360° heat distribution.
- Multi-layered refractory lining using fire bricks and insulation bricks, improving thermal efficiency.



## Additional Operation Equipment



### Bin Tipper

The safest way to load hazardous waste directly into top loading ram loaders. Hands free operation for up to 150kg, compatible with the majority of waste bins. Reliable hydraulically operated mechanism.



### Ram Loader

Built to enable the option of continuous loading throughout operation. Securely positioning waste into the primary chamber whilst maintaining temperature and preventing radiant heat and thermal

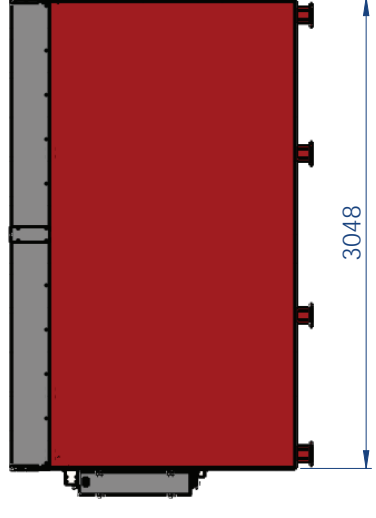
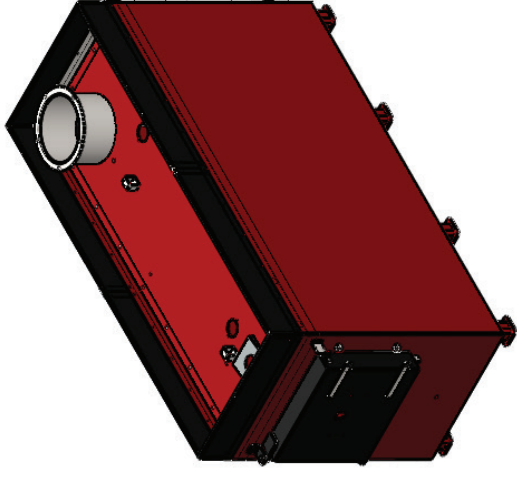
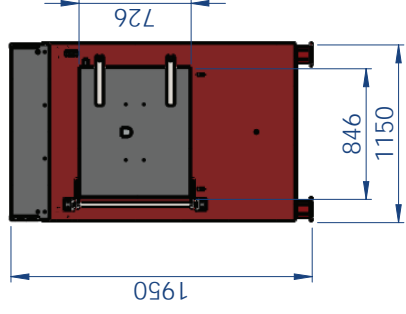
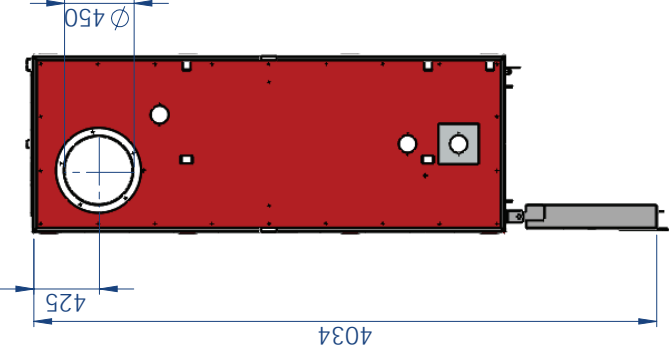


### Venturi System

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.

# MP-400

IF IN DOUBT PLEASE ASK



Material:  
 Specification:  
 Finish:  
 Scale: 1:35

Weight: kg

Drawn by:  
 A Singh

Approved by:

Last saved date: 09/07/2018

Notes:

Dimensions in Millimeters

**addfield**  
 Incinerate • Cremate

Unit 9, Zone 4  
 Burntwood  
 Business Park,  
 WS7 3XD

THIS DRAWING AND ALL INFORMATION CONTAINED HEREON IS THE PROPERTY OF ADDFIELD ENVIRONMENTAL SYSTEMS LIMITED, WITHOUT WHOSE PERMISSION IT MAY NOT BE COPIED, SHOWN OR OTHERWISE USED AND IT IS TO BE RETURNED PROMPTLY ON REQUEST.  
 06 July 2018 15:44:24

Tolerances, Unless otherwise stated  
 WHOLE NUMBERS  $\pm 1.00$   
 1 DECIMAL PLACE  $\pm 0.10$   
 2 DECIMAL PLACE  $\pm 0.05$   
 ANGLES  $\pm 0.5^\circ$

Maximum Surface Finish  
 Unless otherwise stated: 3.2

Title: MP400 Assembly

Drawing Number: MP400-GA

A3

REV. 0

1 / 1

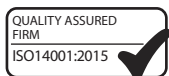
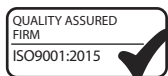


## Controller



# Addfield Intelligent Controller

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



## Controller Features

The Addfield Intelligent 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 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.



## 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
- USB Port.

\*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.