

CMTS

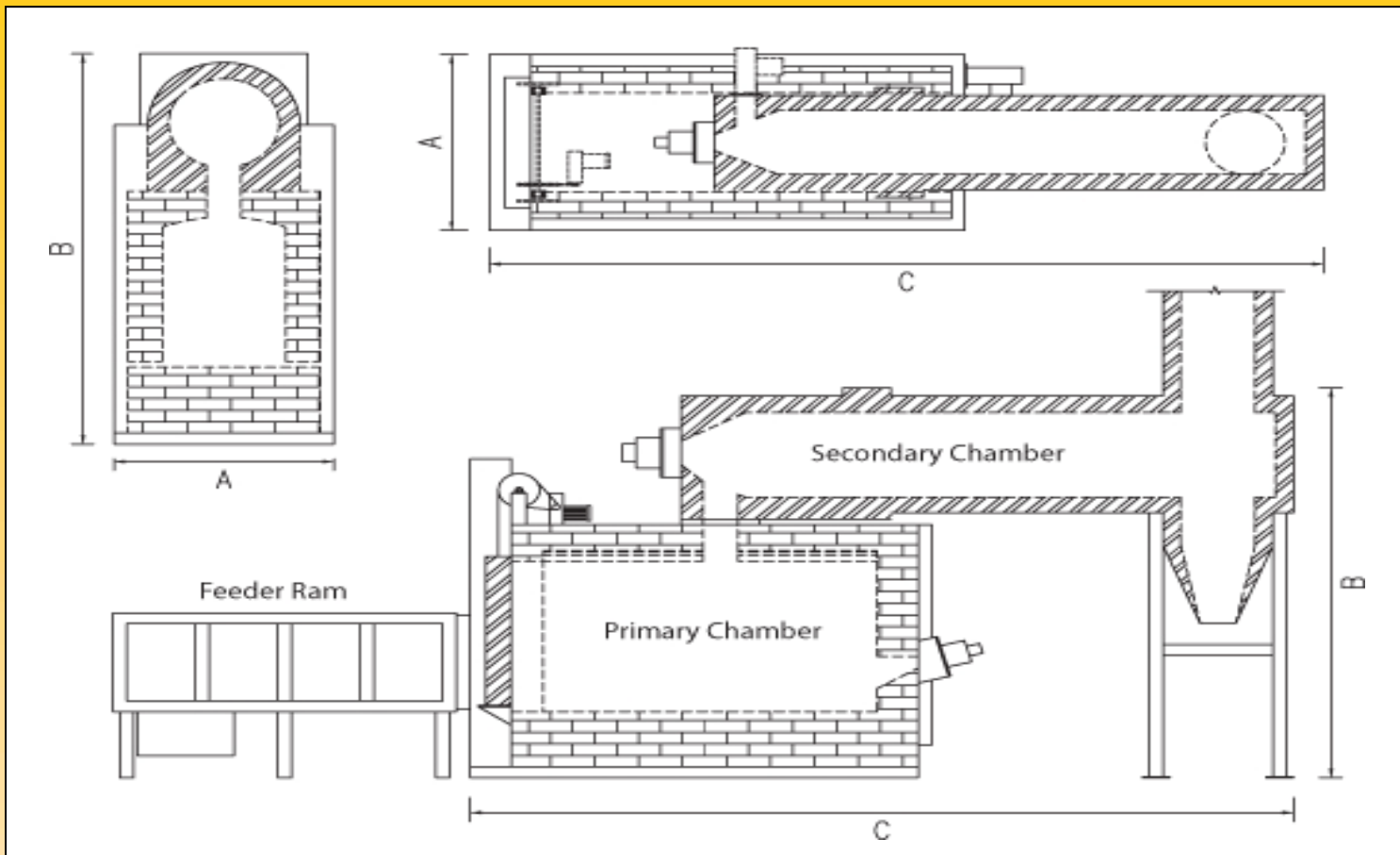
MHI Range

Hospital Waste Incinerators
Capacity : 50 to 200 kg / hr



AMUSTM

Layout Plan



Model	Throughput (kg/hr)	Dimension (mm)			Weight (kg)	Fuel Consumption Mj/hr
		A	B	C		
MHI - 500	50	1480	3050	4254	7500	1600
MHI - 1000	100	1580	3200	6010	8500	2000
MHI - 1500	150	1680	3400	6529	10000	2500
MHI - 2000	200	1680	3500	6915	13000	3200

CMTS Hospital Waste Incinerator

~ Fast, complete, efficient waste disposal

DESCRIPTION

Hospital Wastes are thermally decomposed and burnt using a pyrolysis gasification process with low oxygen in the primary chamber. Gases produced are combusted in a high temperature secondary chamber, where the heat recovered is used to generate a patent pending steam scrubber to remove particulates, before the clean exhaust gases passed to the chimney.

Temperatures are maintained using automatic burners to ensure minimal carbon content in the ash. The thermal oxidizer which operates up to 1200 °C guarantee elimination of any possible odours. This coupled with gas retention times of 2 seconds produce outstandingly low emission figures which meets European codes for waste destruction and pollution control.

The Model HWI-150 work is designed and built using the pyrolysis gasification system. Pyrolysis is the process of heating a waste in the absence of oxygen until it starts to thermally decompose without ignition. In a semi-pyrolytic system such as the HWI range featured here, there is some oxygen and thus some ignition, but most of the gases produced pass un-burnt into the secondary chamber (thermal oxidizer), where complete combustion takes place in stoichiometric conditions i.e. more air than is required for complete combustion. This, along with good air mixing and turbulence in the thermal oxidizer, assures the good combustion characteristics of these units. Using this process drastically decreases amounts of potential particulate emissions and reduces the waste down to a very sterile ash.

Features and Benefits

- Refractory Lining suitable for up to 1600°C
- Robust construction for a long working life
- Reliable Operation
- Simple to operate
- Oil & Gas firing

Options

- Hydraulic ram loader for automatic loading
- Bin tipping system
- Automatic/Semi-automatic de-ashing system
- Flue gas monitoring

Process Control

The combustion process and the flue gas filtration system can be controlled manually as well as fully automatically via PLC.

The PLC can display important process parameters such as combustion temperatures, cycle status and individual component activity. Additionally, the PLC can be used to provide remote monitoring of the system using a regular telephone line and the information can be printed for records.

Flue Gas Filtration

All models can be fitted with flue gas filtration systems. Depending upon the legislative and emission requirements of the country of installation CMTS can recommend and supply the most economic and best available technology for the process. The most common and highest standards, which covers medical, Pharmaceutical and other hazardous industrial waste stream. Our MHI range of incinerator can be supplied fully compliant to EC regulations with two stage ceramic fibre or ceramic bag filtration technology.

Model	MHI-500	MHI-1000	MHI-1500	MHI-2000
Type	Controlled Air Technology, Triple Chamber Design			
Burning rate (kg/hr) Continuous Loading	50	100	150	200

Chamber Volume	MHI-500	MHI-1000	MHI-1500	MHI-2000
Primary Chamber m ³	1.5	2.9	4.3	5.8
Secondary Chamber m ³	0.9	1.8	2.6	3.5
Door Width	0.8	0.9	1	1.1
Door Height	1	1	1.3	1.3

Construction (Refractories)	MHI-500	MHI-1000	MHI-1500	MHI-2000
Primary Chamber Floor	Castable	Castable	Castable	Castable
Primary Chamber Walls	Firebricks	Firebricks	Firebricks	Firebricks
Primary Chamber Arched Roof	Castable	Castable	Castable	Castable
Secondary and Breaching Chamber	Castable	Castable	Castable	Castable
Stack Insulation	LW Castable	LW Castable	LW Castable	LW Castable

Casing Cooling System	MHI-500	MHI-1000	MHI-1500	MHI-2000
Primary Chamber	Air Cooled	Air Cooled	Air Cooled	Air Cooled
Secondary Chamber and Breaching Section	Water cooled	Water cooled	Water cooled	Water cooled

Burner Type	MHI-500	MHI-1000	MHI-1500	MHI-2000
Packaged Burner Type (Standard)	ECOFLAM	ECOFLAM	ECOFLAM	ECOFLAM
Industrial Nozzle Mix Type (Optional)	MAXON/HOPE	MAXON/HOPE	MAXON/HOPE	MAXON/HOPE

Temperature Controls	MHI-500	MHI-1000	MHI-1500	MHI-2000
Primary & Secondary Chamber	FUJI / OMRON	FUJI / OMRON	FUJI / OMRON	FUJI / MRON
Burner interface, status, reset access	Yes	Yes	Yes	Yes
System status alarm display	Yes	Yes	Yes	Yes
PLC (optional)	OMRON/ SIEMENS	OMRON/ SIEMENS	OMRON/ SIEMENS	OMRON/ SIEMENS

Equipment Dimension	MHI-500	MHI-1000	MHI-1500	MHI-2000
mm H	3050	3200	3400	3500
mm W	1480	1580	1680	1680
mm D	4254	6010	6529	6915
Suggested Pad Size (m L x m B)	1.8m x 4.5m	1.8m x 6.3m	1.9m x 6.8m	1.9 m x 7.2m
Equipment Weight (kg)	9500	12000	15000	20000
Fuel Consumption MJ/hr	1600	2000	2500	3200

Electrical Power	MHI-500	MHI-1000	MHI-1500	MHI-2000
Amperes	30	40	60	75
Voltage 3 phase	415V	415V	415V	415V

Stack Supplied (2 units@1.2 metre lengths)	MHI-500	MHI-1000	MHI-1500	MHI-2000
Overall diameter mm	650	700	750	850

Stainless Steel Cladding	MHI-500	MHI-1000	MHI-1500	MHI-2000
Primary Chamber	Optional	Optional	Optional	Optional
Secondary Chamber	Optional	Optional	Optional	Optional



APPLICATION SELECTION TABLE

MHI-500	For the thermal treatment of waste generated from small hospitals or those those with less than 125 beds. Burning rate : 50kg/hr
MHI-1000	For the thermal treatment of waste generated from small hospitals or those those with less than 250 beds. Burning rate : 100kg/hr
MHI-1500	For the thermal treatment of waste generated from medium size hospitals or those with less than 375 beds. Burning rate : 150kg/hr
MHI-2000	For the thermal treatment of waste generated from large hospitals or those with less than 500 beds. Burning rate : 200kg/hr

OPTIONAL EQUIPMENT



Emission Control System



Motorised Door



Hydraulic Ram Loading System



Stainless Steel Cladding

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