KELLER
MANUFACTURING

MULTI-CHAMBER ANIMAL CREMATION CHAMBER SPECIFICATION
Model *KMA- 1200/1000 4 Chamber*

EQUIPMENT:

Keller Manufacturing Inc. Corporation - Multiple Chambered Animal Cremator; Natural Gas, Propane (LP) or Oil fired.

MANUFACTURER:

Keller Manufacturing Inc.

CONSTRUCTION STANDARDS:

The cremator shall be constructed of U.L./CSA listed components and will meet or exceed nationally accepted incinerator construction standards as originally established per the Incinerator Institute of America (IIA) publication guidelines; i.e.:

A. Primary chamber will not exceed 60% of total furnace volumes. Flue connection shall not be considered part of furnace volume.

B. Flame supervision through continuous ultraviolet scanning flame detectors on all burners.

C. High temperature refractory construction with air-cooled walls to prevent excessive heat radiation.

D. Exhaust gas temperature reduction.

SAFETY CERTIFICATIONS

Underwriters Laboratories (UL) listed appliance File number MH47704 Pending

CREMATOR DIMENSIONS:

Chamber volumes:	Primary - 160 CF Total (4.53 CM) or 40 CF (1.13 CM) per chamber Secondary - 180 CF (5.09 CM) Note: Primary Chamber Volumes are figured on the chamber only. Does not include chase-way behind the chamber.
Cremation Chamber:	52 1/4” L x 38 7/8" W x 35" H (1327 mm x 988 mm x 889 mm) per chamber
Structural footprint:	97” L x 217.75 W" (2464 mm x 5531 mm)
Over-all dimensions:	109" L x 222" W (W/ Control Panel) x 113.31" H (2769 mm L x 5639 mm W x 2878 mm H

POWER CHARGING DOORS (4 Doors):

Door Height: 36” (914.4 mm)
Door Width: 30” (762 mm)

OPERATING TEMPERATURE:

Temperatures are determined as a result of federal, state or local permitting authority operating standards.

Typical primary chamber setting: 1,000ºF-1,600ºF (538ºC - 871ºC)
Typical secondary chamber setting: 1,400ºF-1,800ºF (760ºC - 982ºC)

RETENTION TIME:

In excess of 2 seconds.

CAPACITY:

75 lbs/hr per chamber (100 Max) (400lbs total) (34 kg) per cremation cycle (45.4 kg max).

DRAFT:

Induced via refractory lined draft inducer.

SHIPPING WEIGHT:

53,000 lbs. (24,041 kg)

EMISSIONS:

The Keller Manufacturing cremator shall meet or exceed federal, state/province and local environmental regulations.

EMISSION CONTROL:

Secondary chamber equipped with two 1,500,000 BTU/HR burner. Also equipped with an electronic exhaust gas scanner system which temporarily suspends operation of the primary chamber burner if the opacity of the exhaust gases reaches the maximum locally authorized level.

STEEL CONSTRUCTION SPECIFICATIONS:

A. The structure to be heavy 3" steel angle, square tube; 3/8" steel plate, seal welded construction.

B. Subfloor to be 10 gauge steel plate, seal welded construction.

C. The exterior shell to be 14 gauge steel removable panels.

D. Interior shell to be 10 gauge steel, seal welded construction.

INSULATION & REFRACTORY SPECIFICATIONS:

A. Hot Hearth: 3000ºF (1650°C) abrasion resistant cast refractory monolithic cast 7"-13" thick, 1 ½ " .

B. Chamber Floors: 3000ºF (1650°C) abrasion resistant cast refractory, 5" thick on top of 2" 2400ºF (1316°C) light weight insulating castable.

C. Chamber Ceilings: 3000ºF (1650°C) cast refractory, monolithic cast, flat roof, 5"-9" thick, topped by 2", 2400ºF (1316°C) light weight insulating castable.

D. Interior Walls: 3000ºF (1650°C) cast refractory 5". Outer walls backed by 4" (102 mm) of 1900ºF (1038°C) ceramic fiber insulation.

E. Stack: Lined with 2-3" (51 to 76 mm) of 2200ºF (1205°C) insulating refractory.

SKIN TEMPERATURE CONTROL:

Integral dual casing, completely air-cooled design to prevent excessive heat radiation.

COMBUSTION EQUIPMENT:

A. Combustion Air - One (1) single or 3 phase, 220/460V, 17-15.5/7.6 amp, 10 HP air blower motor 1,700 CFM (158 CMM)

B. Primary Chamber - Four 500,000 BTU/hr nozzle mix, gas-fired burner; Eclipse, North American, or equal.

C. Secondary Chamber – Two 1,500,000 BTU/hr modulating, nozzle mix, gas-fired burner. Eclipse, North American, or equal. Depending on application, one of the burners might be 2.0 MMBtu for States with 1800ºF pre-heat requirement.

D. Burner Flame Safeguard - Control supervision on each burner via a flame safeguard relay and ultra-violet light detector.

E. Low Air Pressure Safety Switch - Interlocked to all burners.

EXHAUST GAS TEMPERATURE REDUCTION:

Hot air duct operating exit temperature: 900ºF (482ºC)

HOT AIR DUCT:

10 gauge carbon steel, high temperature 2-3" (50 – 76 mm)refractory lining, pre-drilled flanges, 28" (711 mm) Outside Diameter, 32" (813 mm) at flanges.

UTILITY REQUIREMENTS:

A. GAS:

1. Pressure:
   a) Natural Gas: 12 to 15" W.C. (304 to 381 mm) (12" Static)
   b) LP Gas (Propane): 11-14" W.C. (288-355 mm)

2. Flow Rate: 5,000,000 BTU/hr

ELECTRICAL:

1. Voltage: 220/440 Volts
2. Phase: Single or 3 Phase
3. Freq.:50/60 HZ.
4. Amps: **1 Phase** 70 Amp / **3 Phase** 230v/40amps, 440v/20amps.

CREMATION CHAMBER LOADING/CLEAN-OUT DOOR:

It is a front loading-front cleanout design with cremated remains collection/ cooling hopper and removal system. The hydraulic system pumps are Two (2) pumps rated at 1 HP each.

CREMATION PROCESS CONTROL:

Push button analog control with timers and temperature indicators.

EXTERIOR FINISH:

The top and rear compartments are finished with two coats of high-temperature black or grey polyurethane. The front panels are powder coated in grey color. The cremator is trimmed in stainless steel as an additional option. The loading doors are hi-temperature black paint.

TOOLS:

The tools consist of a steel wire brush and rake with long handles, and a short handle rake.