

## Report of Materials and Equipment Acceptance Division

NYC Department of Buildings 280 Broadway, New York, NY 10007 Patricia Lancaster, FAIA, Commissioner (212) 566-5000, TTY: (212) 566-4769

Pursuant to Administrative Code Section 27-131, the following equipment or material has been found acceptable for use subject to the terms and conditions contained herein.

## <u>MEA 258-05-E</u>

Manufacturer:	B & L Cremation Systems Inc., 7205 114 <sup>th</sup> Avenue North, Largo, FL 33773.	
Trade Name(s):	Cremation Retort.	
Product:	Gas fired crematory incinerator.	
Pertinent Code Section(s):	27-800, 27-826, 27-849.	
Prescribed Test(s):	RS 14-6 (UL 795).	
Laboratory:	Underwriters Laboratories Inc.	
Test Report(s):	File MH 25890 dated July 22, 2005	

**Description** – These are considered commercial-industrial incinerators, which must be connected to a chimney described herein.

Each furnace consists essentially of a refractory-lined retort chamber, secondary chamber, outer casing, control panel, main gas burner, and gas-fired after burner(s). The furnace is designed for operation by means of temperature controls, a timer and switches located on the cover of the control cabinet which is remote mounted or mounted on the furnace.

The units are similar except for the firing rate, physical dimensions, and number of fans. The Model BLP Series is intended for the cremation of animal carcasses. The Model N-20 and Phoenix Series are intended for the cremation of deceased human remains. Model BLP and N-20 Series are provided with one primary burner and one after burner, except for the Model BLP 1500/300 which is equipped with two primary burners and one after burner. The Model Phoenix Series is provided with one primary burner and two after burners.

The furnaces are intended for indoor use only with the following clearances to combustibles: 48 in. front, 18 in. back, 6 in. sides, 6 in. chimney, and 6 in. top. They are provided with burners integral with the unit intended to fire natural or propane gas. A negative pressure is maintained inside of the retort chamber and secondary chamber by an induced draft located at the base of the chimney. The main fuel and primary air are piped separately to the burner head where they are mixed. All burners are designed for on-off, low-high-low or modulating operation and have a spark ignited, proved pilot ignition of the main fuel. The combustion (flame) detector is either the flame rod type or ultraviolet type.

The control system is arranged for automatic start of the blower motor, which provides pre-ignition purging of the primary and secondary chambers for approximately 90 seconds. The after burner is then fired to preheat the secondary chamber. At a preset temperature, the main burner is fired. The secondary chamber is equipped with a temperature-regulating device, which modulates the after burner firing rate, and in cases of excess temperature, deenergizes the primary burner. The burners operate in this manner until the main timer deenergizes the burner flame controls. The blower operation is continued for a period of time to cool down the primary and secondary chambers.

The inlet of the combustion air/induced draft blower is mounted to an air duct, which draws air from spaces between the exterior of the heat chambers and the casing of the furnace. Failure of the blower will deenergize the main and after burner gas valves. The blower also supplies secondary air to the primary chamber and the area, which connects the primary chamber to the secondary chamber.

Refractory lined chimney sections are constructed of 3 in. thick 2500 F castable refractory cement held in place with "V" anchors welded at intervals to the outer carbon steel jacket constructed of 12 gauge steel or stainless steel, seam welded. Each section is 5 ft. maximum length and provided with matching flange ring for mounting and attaching sections.

SIZES AND RATINGS: The units are manufactured in the following sizes and ratings.

Model No.	Primary Burner Btu/h (high/low fire)	After Burner Btu/h (high/low fire)
BLP 200/75	(300,000/NA)	(1,100,000/650,000)
BLP 500/150	(300,000/150,000)	(1,100,000/650,000)
BLP 750/150	(350,000/200,000)	(1,100,000/650,000)
BLP 1000/250	(450,000/200,000)	(1,100,000/650,000)
BLP 1500/300	(450,000/200,000) (+)	(1,100,000/650,000)
N-20, N-20SA	(350,000/150,000)	(1,100,000/650,000)
N-20AA	(350,000/200,000)	(1,100,000/650,000)
Phoenix Series	(350,000/200,000)	(++)

## Gas Input Ratings, Btu/h

(+) – Two burners provided.

(++) – Provided with two after burners. After burner #1 is rated 1,100,000/650,000 Btu/h and after burner #2 is rated 350,000 Btu/h (on-off burner).

All after burners and the after burner #1 on the Phoenix Series are modulating type, all other dual rated burners are high/low type. All dual rated burners are high fire start except for the burners rated 1,100,000 Btu/h, which are low fire start.

**Terms and Conditions:** That the above described crematory furnaces accepted for use in cemeteries only, when fired by natural gas only, under the following conditions:

- 1. Approval shall be obtained from the Department of Health for compliance with their rules and regulations for such use.
- 2. Application for chimney construction shall be filed and permit shall be obtained from the Department of Buildings, as per code requirements in Sections 27-800, 27-826, and 27-849.
- 3. All shipments and deliveries of such equipment shall be provided with laboratory label and a metal tag, suitably placed, certifying that the equipment shipped or delivered is equivalent to that tested and accepted for use, as provided for in Section 27-131 of the Building Code.
- 4. Approval of all electrical equipment, apparatus, materials and devices shall be obtained from the Bureau of Electrical Control before installation.

Final Acceptance 3/13/06 Examined by Stram. Iran