



Matthews University



Elder Davis

“Did You Know”™ Educational Series



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Cremation Terms and Slang (2)

Cremators are specialty incinerators, and the terminology surrounding them comes from the incineration industry. In the next several issues we will familiarize you with these terms that are most useful in communicating with manufacturers and environmental professionals.

Hearth	<p>A solid surface upon which material with high moisture content, or liquids or waste material which may turn to liquid before burning, is placed for drying or burning.</p> <p>a) <u>Cold Hearth</u>: A surface upon which waste material is placed to dry and/or burn aided by the action of hot combustion gases passing only over the waste material.</p> <p>b) <u>Drying Hearth</u>: A surface within the primary chamber upon which the case to be cremated rests.</p> <p>c) <u>Hot Hearth</u>: A surface upon which waste material is placed to dry and/or burn aided by the action of hot combustion gases that pass first over the waste material, and then under the hearth.</p>
Heating Value	<p>The heat released by combustion of a unit quantity of waste or fuel, measured in British Thermal Units (BTU).</p>
Heat Release Rate	<p>The amount of heat liberated during the process of complete combustion, expressed in BTU per hour per cubic foot of the internal furnace volume in which such combustion takes place.</p>
High Duty Firebrick	<p>Dense, non-porous refractory firebrick which provides good thermal efficiency, excellent durability and thermal storage. Primarily used in locations requiring resistance to physical impact.</p>
IIA	<p>Incinerator Institute of America</p>
Incineration	<p>The process of igniting and burning solid, semi-solid or gaseous combustible waste to carbon dioxide and water vapor.</p>
Incinerator	<p>An engineered apparatus capable of withstanding heat and designed to efficiently reduce solid, semi-solid, liquid or gaseous waste at specified rates, and from which the residues contain little or no combustible material.</p>
Insulating Firebrick	<p>Lightweight, porous refractory firebrick which provides excellent thermal efficiency. It heats up rapidly and cools down quickly. Primarily used in locations not subject to physical impact.</p>
Mixing Chamber	<p>Chamber usually placed between the primary combustion chamber and the secondary chamber where thorough mixing of the products of combustion is accomplished by turbulence created by increased velocities of gases, checkerwork and/or turns in direction of the gas flow.</p>
Particulates	<p>Suspended ash particles, charred paper, dust, soot or other partially incinerated matter, carried in the products of combustion. (Sometimes referred to as fly ash).</p>
Photo Cell	<p>Sensor which proves the presence of a flame.</p>
Pilot	<p>A gas burner used to light the main burner.</p>

For service, sales or assistance please call (800) 327-2831

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Questions or comments may be sent to the address listed above

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Primary Combustion Chamber	Chamber within a cremator where primary ignition and burning of the case occurs.
PSI	Pounds per square inch; a unit of pressure.
Pulsating	Rhythmic changing of the flame shape.
Pulverization	The process of reducing the size of the bone fragments after cremation (also called processing).
Ratio	The relation of one substance to another; in burners, the relation of the right amount of air to the right amount of gas or oil is the proper air/fuel ratio.
Refractory	Special brick lining of the cremator.
Relay	Part of a control system used to transfer electrical impulses.
Reset	Generally refers to the main overriding safety control valve; it must manually be turned back on in the event of automatic shutdown.
Schematic Diagram	A diagram drawn to show the proper order and relation of things, rather than how they actually look.
Scrubber	Equipment for removing particulates and objectionable materials from the products of combustion by means of sprays, wet baffles, etc.
Secondary Chamber	Chamber where unburned combustible materials from the primary chamber are completely burned.
Settling or Expansion Chamber	Any chamber designed to reduce the velocity of the products of combustion to promote the settling of fly ash from the gas stream.
Smoke Alarm	A device in the breeching which responds to smoke by setting off an alarm and/or taking some type of corrective action.
Spark Arrestor	A screen-like device to prevent sparks, embers, or other ignited materials above a given size from being expelled to the atmosphere.
Stack, Chimney of Flue	A vertical passage for conducting products of combustion to the atmosphere.
Standard Conditions	A temperature of 68° F and pressure of 14.7 psi dry, and corrected to 12% carbon dioxide.