



# Matthews University



Elder Davis

“Did You Know”™ Educational Series



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## **Cremation Guidelines for Caskets and Containers**

Casket and container types vary widely. Different materials react differently when subjected to the process of cremation. It is especially useful to operators to understand how different caskets and containers will react, on a cold machine or on a hot machine, and to know the *best sequence in which to cremate*, while also taking into account the size of the body in the casket or container.

*Any casket or container described below that contains a which is body 300 lbs. or heavier must be the first cremation of the day in a cold machine.* Special cycle timer settings should be used to accommodate the additional fat tissue involved in such a cremation. The special cycle will be explained in detail later in this issue.

If the body in the container is within the average size range, the following instructions concerning cremation sequence should be followed.

### **Highly Polished Caskets**

The coating on a highly polished casket is highly combustible. *A case in such a container should be the first cremation of the day.* The cremation burner should be turned on just long enough to ignite the container, then shut off. The container will burn down on its own fuel. Let this self-burning continue for approximately 30 minutes; then proceed with the normal operating sequence. This procedure will reduce the chances of overheating the equipment and having pollution problems.

### **Cremation Caskets**

Cremation caskets, or caskets specifically designed for cremation, are becoming an increasingly popular choice for cremation. These containers are relatively lightweight (weighing approximately 40 pounds) and are constructed of soft woods for frames and supports, corrugated fiberboard and various fabrics for linings and coverings. These containers cremate very well, in a relatively controlled manner, and may be cremated in any sequence. As with any combustible material, caution should be taken when performing successive cremations in a hot chamber.

### **Plain Finished Wooden Caskets**

Plain finished wooden caskets should be treated much like highly polished caskets *when the cremation equipment is already hot.* Plain finished caskets have varnish coatings which, when subjected to a hot cremation chamber, can spontaneously ignite. When cremating cases in these types of containers in a hot machine, preheat the afterchamber, then allow the cremation burner to come on briefly to ignite the container and, as described above, allow it to burn down on its own. On a cool machine, follow normal timer settings and operating procedures.

### **Cardboard Containers**

Cardboard containers, by far the most popular containers, may be cremated *in any sequence.* Remember that when successive cremations are being performed, a cardboard container may spontaneously ignite as it is being loaded into a hot chamber. To avoid this, allow more cool-down time between cases.

In the next issue we will review the guidelines for particle board and metal containers, plastic and fiberglass caskets and soft metals. Also, in what ways the different types of caskets and containers affect the cremation process.

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

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### **Particle Board Containers**

Particle board containers are also quite popular and are often covered with fabric to enhance their appearance. A body in a particle board container may be cremated in any sequence using standard timer settings. Due to the dense compression of the wood particles, *it may be more advantageous to cremate these in an already hot machine*, if possible.

### **Metal Containers**

A body in a metal container should be *the last cremation of the day*. In a cremator with an overhead burner, the lid of the metal container must be removed prior to loading. If your cremator has no overhead burners, you should open the end of the casket closest to the burner.

The shell of the metal container will not be consumed and must be retrieved from the cremation chamber after the cycle is complete. *A minimum of 2 hours cooling time should be allowed before attempting to remove the metal shell*. Heat-protective clothing and gloves should be worn by the operator if the container is hot. Even if the metal shell is cool when being removed, gloves should still be worn for hand protection.

### **Plastic and Fiberglass Caskets**

*Plastic and fiberglass caskets are not suitable for cremation and must be refused*. These containers are extremely flammable, and will automatically exceed the capacity limitations of the equipment. This will cause environmental problems, as well as possible damage to the refractory materials in the cremation chamber.

### **Soft Metals**

Soft metals such as zinc are sometimes used in casket handles and trim. This material should be removed from the casket before it is loaded into the cremation chamber. At cremation temperatures, zinc may produce a thick white smoke toward the middle of a cremation, which is difficult to control.

### **Discussion:**

- Cycle time for cremations will vary with container types. This is due to the quantity and combustibility of materials used. For example compare a typical "Cardboard" cremation container at 12 pounds with a "Cremation Casket" at 68 pounds. The cardboard has less mass, which in turn provides less support for the body during the loading process. This requires more care in the loading process of a hot cremation chamber. The combustion of the (cardboard container) provides insufficient energy to ignite the human remains and requires the full fire of the cremation burner as soon as the container is consumed. A cremation casket, however, provides excellent support for the loading process. Typically the finishes and casket materials (unless highly varnished) ignite comfortably and are sufficient to start combustion of the casket, which in turn starts and promotes ignition of the remains inside. This often allows us to use the energy of the casket and less fuel through a burner.
- Safety can be an issue with different container types. We recommend that operators thoroughly consider the materials used in the caskets and containers to know what type of support they provide in the loading process, how they react and combust in a hot cremation chamber and what should not be considered for cremation.
- Emissions from cardboard containers, cremation caskets and containers made from wood are usually very similar and acceptable even though their weight varies significantly. However, very rapid combustion of the container or caskets at start of the cycle due to too hot of a cremation container or too much flame from the burner can cause visible smoke and higher emissions.

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