

## NFDA 2011 Innovation Award Finalist, Fire Marshal by Cremation Systems



### Description of Product 'Originality and Uniqueness'

Fire Marshal is a first of its kind, crematory monitoring technology to help prevent crematorium fires from starting. NO other product measures the temperature of the attic space above a retort next to the stack. Crematorium fires do happen; most are started at the stack below the roof line an area invisible to the cremationist. Fire Marshal is designed as a multi staged pre-warning system to alert the operator of pending conditions suitable for ignition of combustible materials within the attic or building materials adjacent to the retort exhaust stack. Stages include audible alarm, e-mail/smart phone notification with the final stage being automatic shutdown of the entire system. It also provides electronic archiving for all funeral service and state air permit data. Safe, secure, retort monitoring technology for the modern crematorium that is Fire Marshal.

### Description of Product 'Quality and Design'

Traditional industrial furnace time, temperature, and data acquisition technology applied to cremation chambers and funeral home crematoriums. The majority of crematorium fires occur due to installing 1700 °F industrial furnaces in residential funeral home type structures. To make matters worse, most retorts installed between 1996 and 2006 were installed without any regard for NFPA 82. National Fire Protection Association standard 82 clearly defines the amount of clearance required from combustible wood framing members and a retort stack. Without proper clearance heat builds up and over time the wood framing is subject to Pyrolysis, lowering its combustion point due to exhaust stack heat exposure. Fire Marshal measures, records, and reports the temperature inside the retort and most importantly the combustible framing materials in the attic space above the retort.

### Description of Product 'Practicality & Sustainability'

Cremation is a growing business segment for all Funeral Directors. Fire Marshal provides fire safety and data benefits for existing crematoriums and new installations in the future when purchasing Cremation Systems Retorts. As crematory air permitting scrutiny is increasing, the Data Marshal aspect of Fire Marshal enables easy electronic storage of all afterburner temperature data and annual reporting requirements for every case. The same can be stated for annual funeral service board requirements. Most importantly, when the attic temperature reaches 400 °F Fire Marshal sounds an audible alarm, at 450 °F an email is sent to an internet connected device, at 500 °F the retort is shut down. Crematoriums that catch fire are not good for local funeral service or the cremation industry.

### Description of Product 'Benefit & Value'

In the past 12 months, Cremation Systems has replaced three Chicago area cremation chambers due to total crematorium destruction by fire. Fire Marshal is a standard feature on every Cremation Systems Human and Pet cremation chamber. For funeral directors and cremation facilities that have a retort without proper clearance between the retort stack and wood framing members, Fire Marshal provides an economical solution to a potentially catastrophic problem. Video Clip Demonstration: <http://www.pixorial.com/watch/0c8691f3ec479992985ac2f3b583655e>. [Click to view Full Brochure](#)