

Lightning Protection for Geodesic Domes



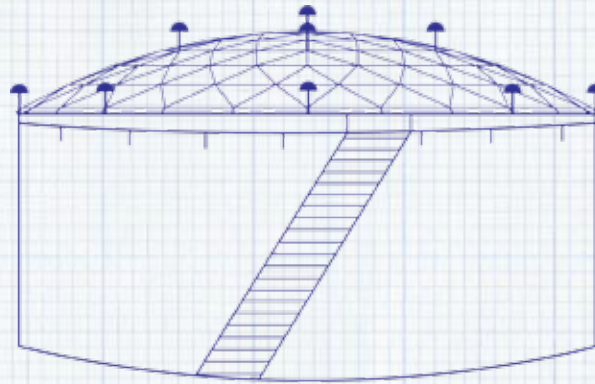
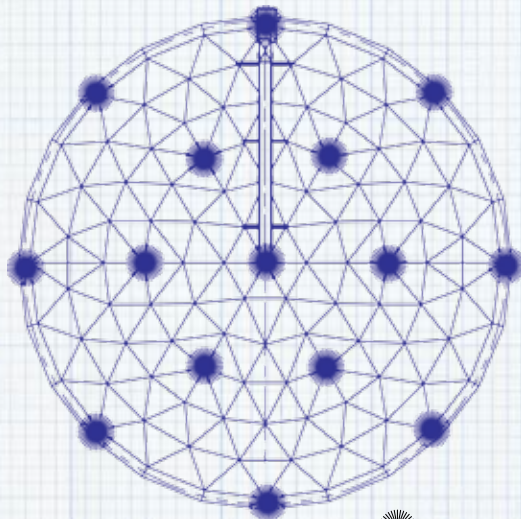
After recent lightning strike incidents with aluminum geodesic domes, the leading dome providers asked for a Lightning Master System to address the concern of potential burn-through in the event of a lightning strike. Lightning Master Corporation subsequently developed a lightning protection system for aluminum geodesic domes, designed to be easily installed and maintained. **The system consists of a network of streamer-delaying air terminals and bonding jumpers.** Contrary to a traditional lightning protection system, which is designed to capture a lightning strike and conduct it to ground, the streamer-delaying air terminals are designed to dissipate ground charge as an electrical storm builds, and reduce the likelihood of a lightning strike from attaching to the protected structure by delaying the formation of streamers (the lightning attachment point) from the dome. In the event of a direct strike, the UL listed air terminals will safely convey the lightning energy to ground.



Lightning strikes caused a fire at a major pipeline company's tank farm in North Carolina early Sunday morning, fire officials said. A tank holding about 20,000 barrels of gasoline — about half that tank's capacity — caught fire. **-CNN**



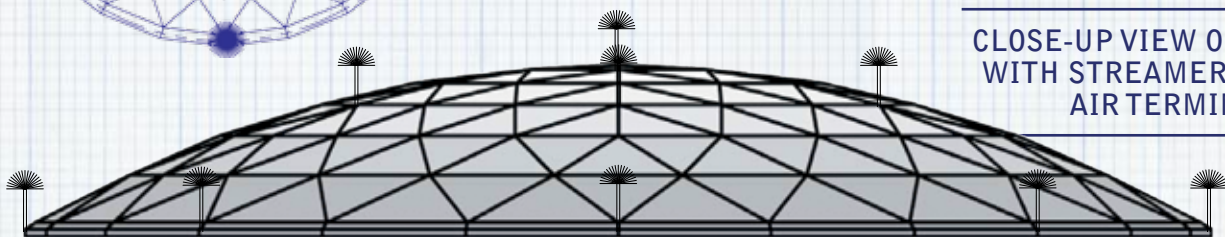
TOP VIEW OF DOME WITH STREAMER-DELAYING AIR TERMINALS



SIDE VIEW OF TANK & DOME WITH STREAMER-DELAYING AIR TERMINALS

API AND NFPA COMPLIANT AIR TERMINAL PLACEMENT

CLOSE-UP VIEW OF DOME TOP WITH STREAMER-DELAYING AIR TERMINALS



Contact us at: 1-800-749-6800 | info@lightningmaster.com | www.lightningmaster.com

Lightning Protection for Geodesic Domes



Gasoline storage tank caught fire after it was struck by lightning. The tank was protected with traditional lightning protection systems, designed to conduct electrical charges into the ground. Security cameras reveal that late in the brief storm a tremendous lightning strike came down in the area of the tank battery. There seems little doubt that the lightning hit the tank, with the electrical grounding system failing to prevent a fire.

-www.fireworld.com

A bolt of lightning struck a local gasoline storage tank, erupting into a wall of flames that leapt as high as 100 feet and belched a plume of smoke that billowed like an arch across eight lanes of interstate highway. The one critical factor that did not operate according to plan was an electrical grounding system that was supposed to draw lightning away from the gasoline tanks.

- www.news-record.com

"I've never seen a lightning bolt that thick, and it came straight down in the center of that tank, and it just like, it almost like, exploded"

-911 recording reported by WXII 12 News

"We're driving down I-40 and we just saw lightning strike one of the big tanks, and it caught fire"

-911 recording reported by WXII 12 News



Lightning Master is a full service, full spectrum static solutions and lightning and transient protection company **servicing the oil and gas and chemical industries since 1984**. Our complete line of products and systems is backed by our worldwide support and customer service. Lightning Master is the global leader in lightning and static protection

Site Survey and Evaluation

- Our field engineers create a detailed report with the findings and recommendations on your site
- Our team of experienced engineers perform forensic analysis of lightning and static damage

Products

- Bonding and Grounding
- Surge Protective Devices
- Structural Lightning Protection
- LMC In-Tank Static Dissipators

System Design

- We custom-tailor site-specific protection
- We help you write specifications that meet your specific needs

Customer Service

- Turn-key installation by Lightning Master-employed crews
- Training, supervision, and ongoing support of Customer personnel or contractors
- Lightning Master approved installation contractors
(in selected areas)

Industry Leaders

Lightning Master Principals serve as members of the National Fire Protection Association NFPA 780 Committee on Lightning Protection, the American Petroleum Institute API 545, committee on lightning protection for hydrocarbon storage tanks. They also served as principal members of NFPA 781, Committee on Lightning Protection using Early Streamer Emitting (ESE) Air terminals and the Institute of Electrical and Electronics Engineers IEEE 1576, committee on lightning protection using charge transfer (static dissipation) systems.

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