# STRUCTURAL LIGHTNING PROTECTION



### STREAMER DELAYING AIR TERMINALS

STREAMER DELAYING LIGHTNING PROTECTION SYSTEMS

The Lightning Master Streamer-delaying lightning protection system employs the basic conventional system with modified air terminals which are designed to reduce the incidence of direct strikes to the protected structure.

Lighting Master uses NFPA 780 and UL 96A as its design and installation standard. Lighting Master products are designed for ease of installation. A variety of factory designed and supplied installation systems make it possible to easily tailor the Lightning Master Streamer Delaying system directly to the product structure. Our designers will be happy to tailor a system designs specifically for your structure.

On a building or other structure normally protected by lightning rods and the associated bonding and grounding system, existing industry accepted lighting rod systems design provides an adequate and proven method and arrangement for mounting Lighting Master brand Streamer Delaying air terminals. Lightning Master PP-30 products are Underwriters Laboratories listed air terminals, additionally offering stream delaying properties.

Now a user can enjoy the benefits of a "Master Label" and insurance carrier requirements, as well as the benefits of the system.



- Variable length based on site specifications
- Four metals to choose from stainless steel, copper, aluminum, or tinned copper
- We custom-tailor site-specific protection
- Turn-key installation
- UL Listed, designed to meet UL 96A and NFPA 780





## **Streamer Delaying Technology**

Lightning Master Streamer Delaying Air Terminal technology is based on the Point Discharge Formula given below.

$$\varepsilon = \frac{Q}{4 \pi \varepsilon r^2}$$
  $D = \frac{Q}{4 \pi \varepsilon r^2}$ 



where:  $\varepsilon$  = electric field intensity

**Q** = charge (in coulombs)

 $\epsilon$  = permittivity of space

r = radius

# Custom designs for all your needs

#### **Streamer Delaying Air Terminals**

Multipurpose spot dissipater - Lightning Master straight air terminals can be mounted wherever traditional lightning rods would be mounted. Made in stainless steel, copper, aluminum, or tinned copper for site specific customization, and can be attached to any Lightning Master base. Lengths vary based on site and application.

#### Pressure Vacuum Relief Valve - Streamer Delaying Air Terminal

Lightning Master Valve solutions are oriented to provide clearance when valve opens during operation. This 36" spot dissipater installed on an Protego Valve riser pipe. FRP pipes requires a down conductor cable, attached to the pipe at 3' intervals, and grounded at the base. Steel pipes do not require a down conductor cable.

#### Candelabra Air Terminal

For use in place of standard air terminals in a structural lightning protection system installed to UL-96A and NFPA 780 specifications. Standard elevation conductor: 5/8"x18", 1/2 thread (unless otherwise specified).

# About Lightning Master®

Lightning Master® is a full service, full spectrum static solutions, lightning and transient protection company, serving the oil, gas and chemical industries since 1984. Our track record of success and exceptional customer service in North America, Asia, Africa, Europe and the Middle East has established LMC® as the global authority on lightning and static protection. With our unparalleled customer service we're with you, every step of the way.



