

# **DAS**®

## Dissipation Array® System

A Total Lightning Prevention Solution DAS prevents direct lightning strikes within a designated area of protection and LEC's "No-Strike" warranty ensures complete protection on all LEC supervised installations.

Engineered to integrate with any building, rig, tower, tank, stack or other structure, DAS technology has been in use since 1971. With over 3,000 systems installed worldwide, accruing over 50,000 system-years, DAS maintains a success rate over 99% and continues to protect thousands if sites without incident.

#### How does it work?

DAS prevents direct lightning strikes by reducing the electric field to below lightning-collection levels, within the protected area. As a result, DAS helps to prevent downtime and loss of assets, while increasing personnel safety.

DAS interrupts the formation of these upward streamers through point discharge, a phenomenon where a well-grounded point exchanges ions between the air and the ground.

Point discharge becomes more efficient when the points are connected to a low-impedance grounding system and more ions can be transferred with a greater number of points. DAS technology takes advantage of these principles with an optimal point configuration able to interrupt the formation of upward streamers, thereby preventing direct strikes. To learn more about direct strike prevention visit www.lightningprotection.com/das

#### **DAS System Components**

DAS is a key component of your lightning protection system, working with grounding and surge suppression to achieve complete protection. A typical system includes:



- 1. The Dissipation Array® System (DAS®): available in a range of configurations for almost any structure.
- 2. Chem-Rod®: a low-impedance grounding system using chemically-charged electrodes
- 3. Surge Protection Devices (SPD): to protect against transients traveling through data lines and other conductive paths.
- 4. Spline Ball Ionizer® (SBI®): a modular strike prevention device, as needed to supplement the DAS area of protection.

As a facility grows and expands, LEC works with you to evaluate how your system is affected, recommends necessary changes and works with you to ensure uninterrupted state-of-the-art protection.



#### **Lightning Prevention Steps**

**Step 1 | Analysis:** LEC consultants evaluate the site for factors that contribute to lightning events, including existing lightning protection systems.

**Step 4 | Certification:** LEC-supervised installations receive our LEC "No-Strike" warranty - Terms and Conditions apply. Please visit www.lightningprotection.com to learn more.

**Step 2 | Design:** LEC engineers then specify system components, placement, and structural interfaces. Designs account for environmental factors like wind, ice, and corrosion.

Step 5 | Monitor

It's important to check and selfinspect your systems throughout the year to ensure there is no damage or changes. If damage or changes occur, LEC should be notified immediately. **Step 3 | Installation**: LEC offers installation supervision for all DAS installations.

**Step 6 | Recertification and Maintenance**: Systems must be inspected, maintained and recertified on an annual basis to retain "No-Strike" warranty status -Terms and Conditions apply.

### **Dissipation Array Designs & Applications**



**Hemisphere Array**Can be placed on any industrial or commercial structure, including poles, buildings, and towers.



**Parapet Array**For any commercial or industrial flat roof building with parapet around the edge.



**Flat Roof Array**For any flat-roof building. May be used to supplement protection on a roof that has a parapet array.



**Conic Array**For cone roof and dome roof storage tanks. Commonly used in petrochemical and flammable storage industry.



**Rim Array**Designed for floating roof tanks used in petrochemical and flammable storage industry.



**Stack Array**Used on industrial smoke/exhaust stacks.
Corrosion resistant designs available.



**Trapezoid Array**For use on industrial and commercial structures with guy ropes. Effective even if not the highest point.



Paragon Array
Multiple use configuration. Variant
commonly used on transmission and
distribution lines.



**And Many More...**Our solutions can be engineered to fit any need.