



- Eliminates Corrosion
- Quick Installation

# Tank Farms

## Tank Farms & Refineries

### The Risk

- Explosion and fire due to insufficient lightning protection / grounding systems.
- Personnel safety compromised by insufficient or incorrect grounding systems resulting in electric shock or the production of potentially harmful EMF radiation.
- Potential failure and corresponding downtime due to the electrical disruption of improperly grounded electronic control systems.

### Evaluating Existing Grounding Systems

The first step towards a solution is to audit existing tank farm grounding systems to assess:

- The state of the grounding system, focusing on corroded elements. Corrosion degrades the ability of the system to respond to lightning events.
- The integrity and performance of the grounding system, including nearby grounding systems. Independent grounding systems near each other can work against each other, causing dangerous ground loop currents.
- Conformance to current grounding practices and regulations.
- A review of grounding system advances, including innovative technologies and materials.



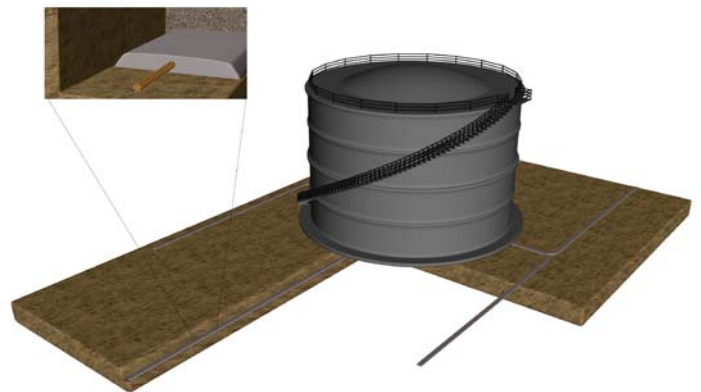
## The Solution

- Update external tank farm grounding systems to new cost-effective, long life systems engineered and deployed to protect personnel and tank infrastructure from potentially catastrophic lightning strikes.
- SAE electrodes enhance tank farm safety by eliminating lightning induced Ground Potential Rise (GPR) arcing to nearby structures that can ignite the combustion of volatile fuels.

## SAE Enhanced Grounding Electrodes

SAE enhanced grounding electrodes offer unparalleled electrical and financial performance over competing approaches, notably:

- SAE electrodes are constructed of Conducrete, a specially formulated conductive cement that sets up to form molecular bonds between the copper core conductor and soil that enhance energy dissipation, even in difficult, high soil resistivity conditions.
- Engineered SAE electrodes feature low impedance and high capacitive electrical properties – ideal for grounding systems.
- Superlative high energy dissipation characteristics – the large surface area of an SAE electrode keeps surface energy densities low, facilitating better energy dispersal into the soil and preventing high energy damage to the electrode itself, which in turn contributes to excellent longevity, especially under repeated lightning strike events.
- SAE electrodes are built to deliver their high performance, maintenance-free service over very long lifetimes of 25+ years, contributing positively to your financial bottom-line.
- Environmentally neutral, SAE enhanced grounding electrodes are sealed to prevent contaminant migration.
- Where site geometry and conditions permit, horizontal electrodes can be engineered instead of costlier vertical systems.



## A Global Player

SAE's innovative premium products and services solve the most challenging grounding, AC mitigation and cathodic protection issues. Founded in 1990, SAE continues to develop best-in-class electrical grounding systems and cathodic protection solutions. In addition to further developing its core business, SAE is currently focused on establishing international distribution for its products and services.