## **BONDING AND GROUNDING**





### MAGS® (MOVEABLE ARM GROUNDING SYSTEM)

EFR TANK BONDING SYSTEM

The MAGS® (Movable Arm Grounding System)™ by Lightning Master® is a patented bypass conductor system for external floating roof tanks. It exceeds the requirements of the American Petroleum Institute API 545 and the National Fire Protection Association NFPA 780, and is ATEX Certified.

It is a simple, reliable, gravity-powered system, and has been through a simulated wind test in excess of 2,000,000 cycles without wear or failure.

MAGS® is easy to install, and has a worldwide base of trouble-free installations. Unlike some other systems, MAGS® is certified for installation in a Classification 1, Division 1 area.



- Patented EFR Tank Bonding System
- Certified for Installation in Classification 1, Division 1 area
- ATEX Certified
- Best Available Technology- exceeds API 545, NFPA 780, and IEC 62305 Standards requirements for bypass conductors
- Wind tested to simulated 110mph in excess of 2,000,000 cycles without wear or failure
- Low Maintenance, nothing to break- Simple gravity powered design
- No spring loaded parts or retracting materials
- Safe insulated conductor- UV and Thermal protected cable, rated for extreme climates
- Highest quality materials
- Easy Installation
- Manufactured at our headquarters

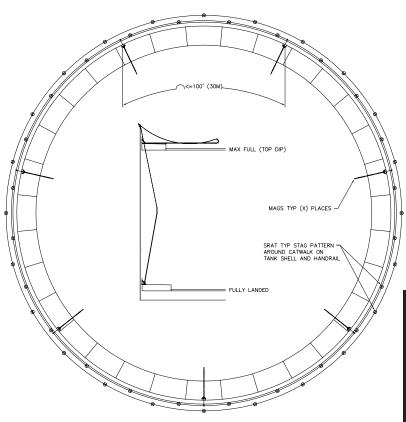




#### **History of MAGS®**

Approximately 30% of tank fire and explosion incidents are due to lightning.

EFR tanks are particularly vulnerable to the effects of lightning because of the isolated floating roof. A direct or nearby lightning strike will cause a difference in potential between the floating roof and the tank shell, which, if not properly bonded can be an ignition source.



#### **Testimonial**

"The system works. Our quantity of lightning strikes reduced significantly. About a year ago, we started construction on two new external floaters, and compared the rim array/RGA vs the dissipater/MAGS system. The dissipater/MAGS system was cheaper, easier to install, and Operations was ready for a change because the RGAS require a lot of inspection and maintenance, and the rim array system is not robust."

- Nate Werner, BORCO Blue and Yellow Expansion

# **About Lightning Master Corporation**

Established in 1984, Lightning Master® is a global, full service, static solutions, lightning and surge protection manufacturing company. We serve a wide range of customers including oil, gas, chemical and other industrial facilities. Our complete line of products, systems and consulting services are backed by our worldwide customer service. Our track record of success in the Americas, Asia, Africa, Europe and the Middle East has established LMC as a global authority on lightning and static protection.



