

# Lightning and earthing solutions for met masts

ART provides a comprehensive range of lightning mitigation and earthing solutions to safeguard met masts and equipment from lightning damage.

Each ART met mast is supplied with a standard earthing system, which includes grounding of the mast structure and guy wires, along with a basic aluminium lightning finial. While this standard setup offers general protection, it does not shield instruments mounted above the top guy wire from direct lightning strikes.

Sites located in lightning-prone areas or where enhanced protection is required, ART offers advanced mitigation solutions.

A custom Lightning Protection System (LPS) assessment can be undertaken to understand the specific requirements, and from this, an earthing design is developed. ART's in-house team will tailor an earthing system design that meets standards AS/NZS 1768:2021 and is suited to the specific site conditions.





#### **FEATURES**

- Standard protection All ART met masts include a basic earthing system and lightning finial.
- Customised solutions Site-specific LPS assessments and designs to AS/NZS 1768:2021.
- Upgraded finials Advanced designs protect instruments above guy wires from direct strikes.
- Advanced packages Complete systems with surge protection, equipotential bonding, site testing, and reporting.
- Proven & compliant Fully tested solutions that reduce downtime and extend mast life.

#### Enhanced lightning mitigation options include:

#### Upgraded lightning finials

ART has developed upgraded lightning finials that offer a significantly higher level of protection for riser-mounted instruments.

These finials are designed following IEC 61400 and AS1768 standards and can shield up to 99% of possible direct strikes based on the rolling sphere method. They are specifically configured to protect instruments positioned above the uppermost guy wires, which are otherwise exposed.





## High-level earthing and lightning mitigation package

ART offers an advanced high-level earthing and lightning mitigation package. This includes a detailed system design, on-site installation, commissioning and testing, and a full report. The package also incorporates additional surge protection devices and equipotential bonding methods to assist with minimizing stress voltages on key components such as data loggers, power supplies and instruments.

All of ART's lightning protection and earthing systems are tested, validated, and fully compliant with relevant standards. These solutions are designed not only to protect people and equipment but also to minimise downtime and extend the operational life of met mast installations in environments where lightning risk is high.



### About us

ART designs, manufactures, installs, and maintains turnkey infrastructure solutions for wind resource assessments, as well as for the broader renewables, resources and communications industries.



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