

LiMit Collar

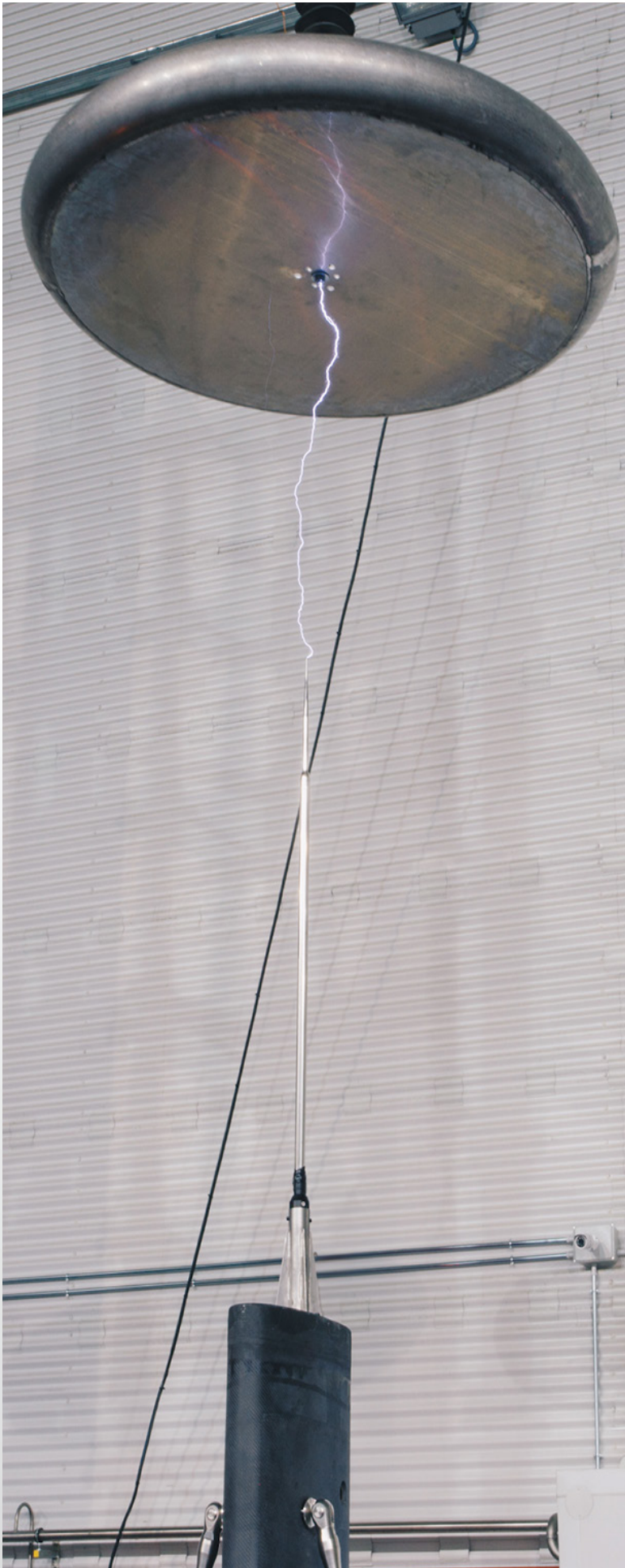
Lightning Mitigation System for Carbon
Composite Rigging

 **DAME**
CATEGORY WINNER
2023

Future Fibres has developed an innovative system for its range of multistrand composite rigging products that mitigates damage caused by lightning.

The **LiMit Collar** is the result of a multi-year research and testing program that included lightning strike testing under the most demanding aerospace standards with varying environmental conditions, as well as subsequent mechanical tests to understand the properties of the cables after a strike.

It prevents the lightning current from arcing from the Carbon Fibre Core to the metallic terminals, which could damage the composite materials. Instead, LiMit collars absorb this arcing to provide protection to the composite materials underneath. Therefore, LiMit collars are installed at each conical end fitting with a metallic interface connection to mitigate the damage caused by direct or induced currents.



LiMit Collar Development & Validation



S/Y AQUINO June 2021 (photo by J.Brill)

TESTED UNDER AEROSPACE LIGHTNING STANDARDS

- EUROCAE ED-84A.
- Up to zone 1A Strikes. 200kA. and 2MJ/Ω.

LIGHTNING TESTS

- Limit conditions.
- Repeated frequent conditions (2 x 25%).
- Limit + wet conditions.

MECHANICAL TESTS

- Ultimate tensile strength
- Cyclic fatigue loading.

Contact
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