



Overview

The Southern Avionics 145ft (44.2m) mast antenna is made of 16 (sixteen) hot-dipped galvanized steel sections configured on 18 inch (47.7cm) equilateral triangular design with electrically welded continuous 'zigzag' cross bracing. The 45G lattice tower sections are designed in accordance with U.S. National Standard ANSI/EIA-222F.

Three (3) high voltage insulators are used to isolate the radiator from ground. Rain shields are included to enhance the insulation characteristics of the antenna. Three (3) Top Loading guy wires are used to develop and enhance antenna capacitance. A perimeter wire can be added to increase the basic radiator capacitance from 680 pico-Farad (pF) to 1,018pF through the use of extra top loading. This added capacitance reduces the system's Quality Factor (Q) thus allowing more side band audio tone to be received down range by the pilot.

The antenna includes a 16 (sixteen) radial ground system consisting of 762m of #10 AWG soft-drawn copper wire, 17 (seventeen) 2m long ground rods with ground clamps and associated hardware.

P/N SLF10066

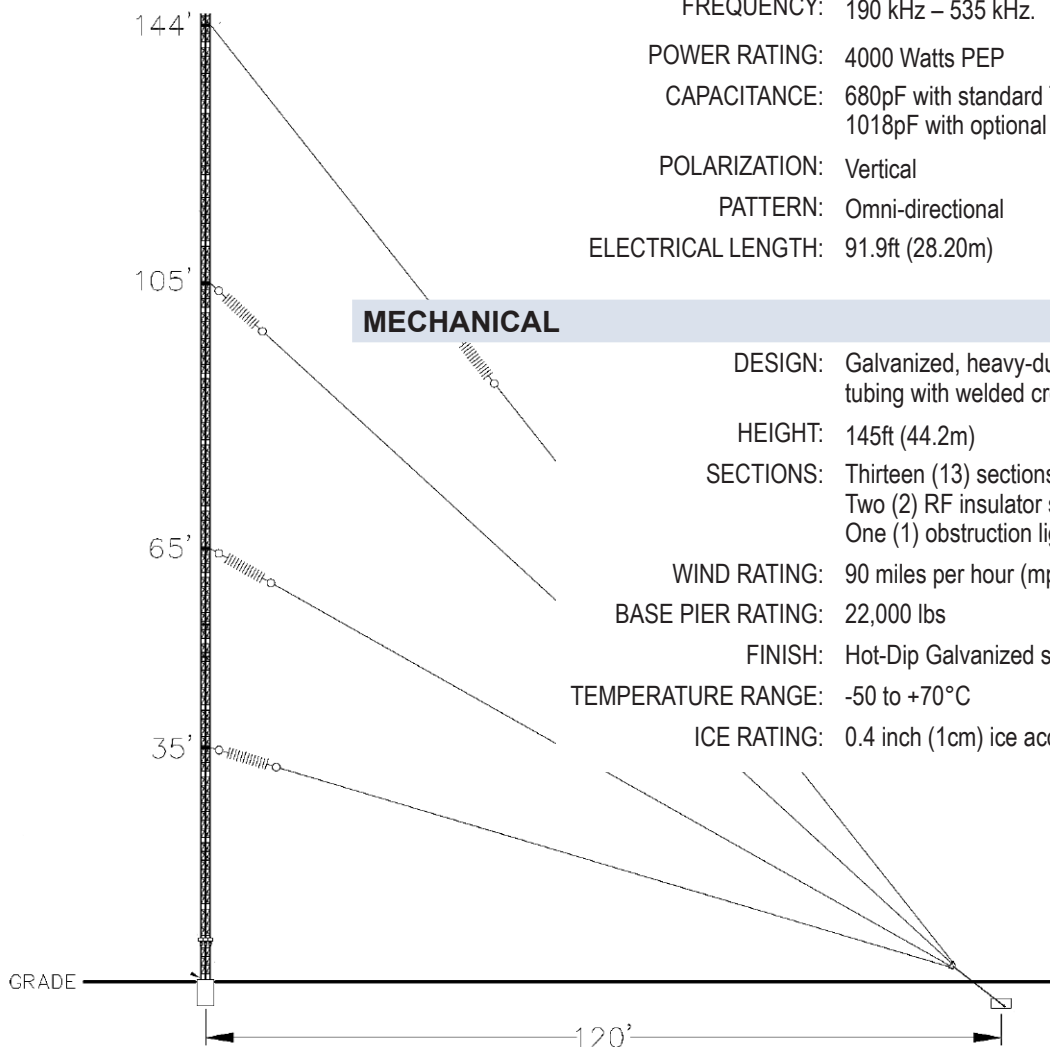
Specifications

ELECTRICAL

FREQUENCY: 190 kHz – 535 kHz.
 POWER RATING: 4000 Watts PEP
 CAPACITANCE: 680pF with standard Top Loading Guy wires
 1018pF with optional Perimeter wire loading
 POLARIZATION: Vertical
 PATTERN: Omni-directional
 ELECTRICAL LENGTH: 91.9ft (28.20m)

MECHANICAL

DESIGN: Galvanized, heavy-duty 1-1/4 inch (3.2cm) steel tubing with welded cross sections
 HEIGHT: 145ft (44.2m)
 SECTIONS: Thirteen (13) sections 10ft (3m) in length
 Two (2) RF insulator sections 5ft (1.5m) in length
 One (1) obstruction light section 5ft (1.5m) in length
 WIND RATING: 90 miles per hour (mph) / 144 km/hr
 BASE PIER RATING: 22,000 lbs
 FINISH: Hot-Dip Galvanized steel
 TEMPERATURE RANGE: -50 to +70°C
 ICE RATING: 0.4 inch (1cm) ice accumulation



SOUTHERN AVIONICS COMPANY

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Installation Options

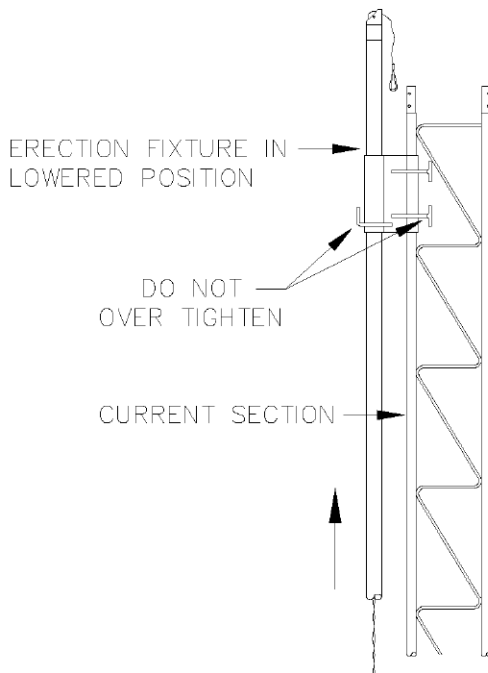


Figure 2.6 - Assembly using erection fixture 1.

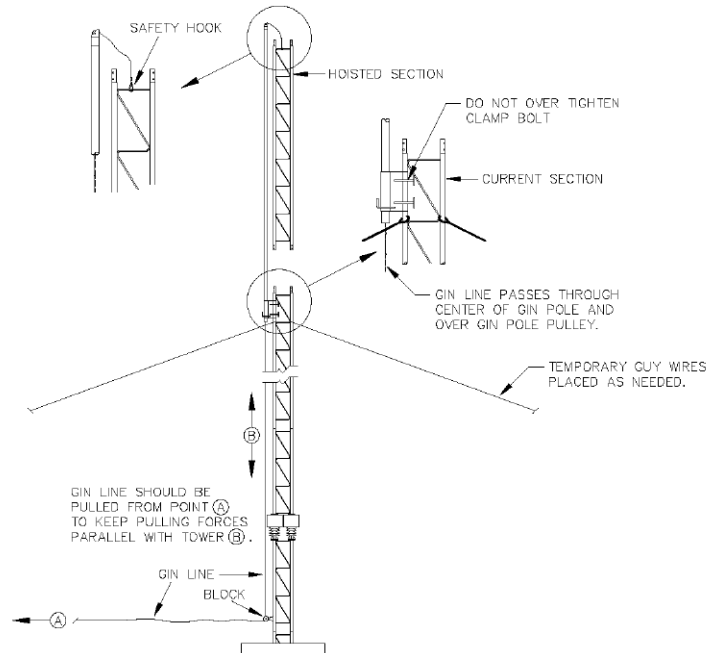


Figure 2.7 - Assembly using erection fixture 2 (included w/ Optional Installation Kit.)

Optional Equipment

Solar powered and hard-wired obstruction lights are available.

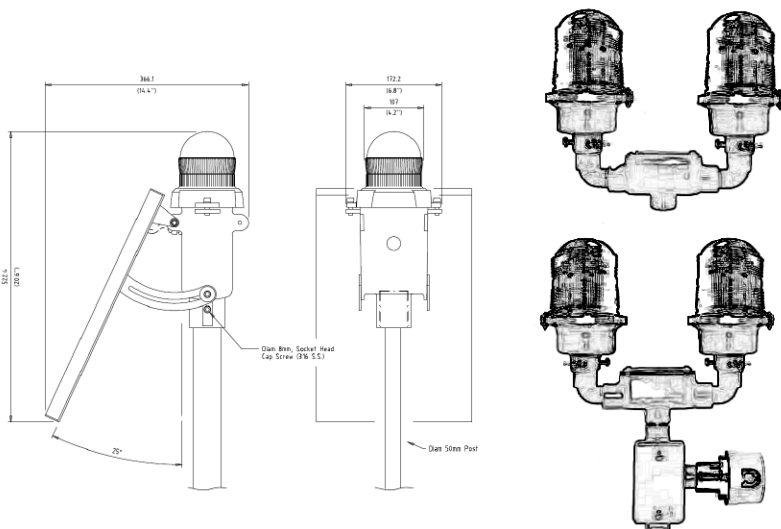


Figure 2.8 - Counterpoise

