



Millard Towers Approach Lighting System (ALS) masts are used to rigidly support equipment, yet yield if accidentally impacted. Frangibility has been confirmed by third-party full-scale impact testing and FEA modelling. In fact, Millard masts are present in ICAO Doc 9157 as examples of proper frangible design and testing.

Utilizing triangular masts, Millard's design for a single lamp support structure minimizes mass for optimal frangibility without compromising rigidity. Furthermore, a double mast structure can be used to support a lightbar providing minimal deflection in even the heaviest wind and ice load conditions. Single lamps masts can be equipped with a Tilt Base or Center Hinge to allow for simple and safe servicing. Standard heights available up to 14m with XTALL solutions available for heights above this.

Millard's Aluminum design is engineered for all climatic conditions and backed by a 10-year warranty. Millard's frangible designs have been installed at over 500 airports in over 65 countries.



DESIGN

DESIGN	120P ²	7T	9T	13T	18T
MAX LAMP HEIGHT	1.20m	4.04m	6.30m	8.48m	14.38m
LAMP MOUNT	60mm OD	60mm OD	60mm OD	60mm OD	60mm OD
MAX LIGHTBAR LENGTH ³	6.00m	6.00m	6.00m	6.00m	6.00m
SERVICING ¹	Fixed Base	Tilt Base	Tilt Base	Tilt Base	Center Hinge
QTY OF SECTIONS	1	1	2	3	4-7
FOOTPRINT	85mm Square	229mm Triangle	330mm Triangle	457mm Triangle	610mm Square

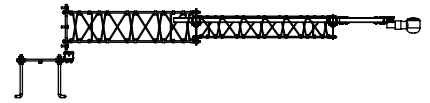
¹ Standard offering shown. Other Servicing features available upon request.

² Per ICAO Frangible Pole design is limited to 1.20m. Frangibility has been confirmed through static testing only.

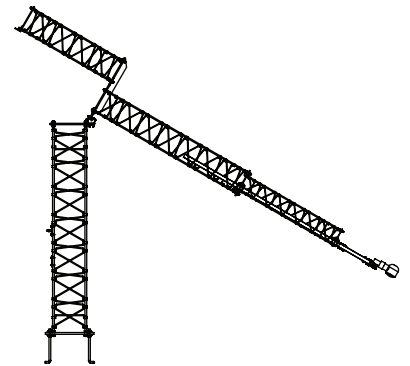
³ Lightbar supported using double mast structure.

SERVICING

TILT BASE



CENTER HINGE



SPECIFICATIONS

CONSTRUCTION.



SECTIONS, PLATES, ACCESSORIES (ASTM): 6061 Aluminum



HARDWARE (ASTM): ECO GUARD Grade 8 Steel



POWDER COATING (AAMA): Aviation Orange



RECYCLABLE (LEED): Made from 75% Recycled Aluminum



TYPICAL LIFESPAN: 25 Years

PERFORMANCE.



OPERATIONAL: 120km/h Wind Gust
SURVIVAL: 185km/h Wind Gust



MAX. DEFLECTION (ICAO): 5° Horizontal, 2° Vertical



FRANGIBILITY (ICAO): 3rd Party Full-Scale Impact Tested



LAMP LOAD: Single - Max. Surface Area 755cm², Weight 5kg
Lightbar - Max. Surface Area 0.35m², Weight 25kg



WARRANTY: 10 Years

FRANGIBILITY

ICAO DOC 9157, PART 6:

1.3.2: Elevated approach lights and their supporting structures should be frangible.

4.9.19: Any approach lighting structure required to be frangible should be designed to withstand the static and operational/survival wind loads with a suitable factor of safety but should break, distort or yield readily when subjected to the sudden collision forces of a 3,000kg aircraft air and travelling in any direction at 140km/h.

5.2.8: Navigational aids having an overall height over 1.20m should be verified for frangibility by dynamic testing. Tests should be conducted with a vehicle-driven impactor.

5.3.1: Full-scale testing is complex and costly; however, it is the manufacturer's responsibility to carry out these tests.



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