



G. S. I. Inc.

Manufacturer & Distributor of Aerospace Lighting

Godfrey Systems International, Inc.

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EXEL FRANGIBLE AIRFIELD SAFETY MASTS

Compliance:

FAA AC 150/5345-53 Appendix 3 (AC 150/5345-45C)
Type L-891 & L-892 Low Impact Resistant Structures,
ICAO 2005 Frangible Category

Applications:

The presence of structures at airports near runways, such as approach light support structures, is essential to safe operation of aircraft. These structures are also potentially dangerous in case of emergencies, when aircraft are performing non-standard approach or take-off.



Hence, such structures must be frangible, stiff and strong during operation at high wind forces, but fragile when hit by an aircraft, as specified by International Civil Aviation Organization (ICAO) in International Standards and Recommended Practices - Aerodromes - Annex 14 Vol. 1, Third Edition July 1999, § 5.3.1.3. Exel Composite Safety Masts meet ICAO 2005 Frangible Requirements and are tested under ICAO supervision.

Features:



Exel Composites Safety Masts are built out of fiberglass and based on thorough knowledge of composite technology. Fiberglass reinforced composite materials have numerous advantages compared to conventional materials like metal. Exel Safety Masts are made according to a special lattice structure and they have many innovative technical details in their construction. Just to name one detail, there is a patented diagonal-bar joint-bonding method that is used. As a consequence of this structure, the mast is very rigid. Even in strong winds and heavy ice loads, there will be very limited swaying, twisting, or oscillating that could cause the light beams to fluctuate. The construction strength can be altered in the airfield requires.

Exel Composites Safety Masts are lightweight, not only because they are made of fiberglass reinforced composite tubes, but because of their diagonal multi-beam construction. This makes installation work easy. The mast can be easily inclined for servicing lights and when the mast is raised back up it returns to its original position with no need to re-align.



Advantages:

Composite materials are corrosion-free. They are neutral to environments that might be encountered at airfields due to geographic location, such as humidity, salty winds, etc. Extreme temperatures have no affect, as the masts perform equally well in tropical climates to the Arctic. There is practically no need for maintenance, as Exel Safety Masts have excellent fatigue resistance properties due to their ingenious design. Therefore, Exel Composites Safety Masts are the smart choice when long service lifetime is required. There is no need for periodical re-alignment and tightening of screws / nuts that certain types of metal masts require.



The busiest aviation centers, from the Arctic Circle to the Equator (over 500 airfields) have chosen Exel Composites Approach and Weather Masts.

Manufactured by:



Exel Composites Oyj / EXW Factory

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