

ILUSTRO^o

Complete Solutions

for Frangible Towers
& Poles Meteorological Systems

Last update : APR 2025





ILLUSTRO – Your Trusted Engineering Partner

ILLUSTRO was established in 2020 with a registered capital of 5,000,000 THB (five million baht). The company operates in the fields of high-voltage electrical engineering, alternative energy, technology innovation, specialized machinery and equipment distribution, as well as engineering services including design, installation, and construction of specialized projects.

With our extensive experience in high-voltage electrical contracting, ILLUSTRO has earned the trust of government agencies, particularly in projects related to electrical substations, including construction, installation, equipment testing, and other related services. Additionally, we specialize in the distribution and installation of essential and crucial frangible structures for airports.

ILLUSTRO is backed by a team of experts from various engineering disciplines, each with extensive experience in their respective fields. With our expertise, you can trust ILLUSTRO to ensure the smooth and successful execution of your projects.





ILLUSTRO: Your Trusted Partner for SGS Frangible Towers & Poles

As part of our commitment to providing safe, reliable, and high-quality solutions for the aviation industry, ILLUSTRO is proud to be the official distributor and installer of SGS Frangible Towers Pvt. Ltd. products. SGS is a leading manufacturer specializing in frangible towers, masts, and poles for housing weather equipment (AWOS), approach lights, glide path masts, and more for airports worldwide.

Frangible Towers: Designed for Safety and Durability

SGS's frangible structures are manufactured using advanced fiberglass composites and resins, ensuring optimal strength, durability, and frangibility. These towers and masts are designed to withstand high winds and jet blasts while minimizing impact in the event of an accident.

Certified for Excellence: FAA & ICAO Compliance

SGS's frangible towers and poles have undergone full impact testing in compliance with U.S. Department of Transportation Federal Aviation Administration (FAA) Advisory Circular No. 150/5345-45C, Sections 3.9 and 4.2.5, and the International Civil Aviation Organization (ICAO) Document 9157 An/901, Part 6, Subsections 4.9.20, 4.9.21, and 4.9.22. This rigorous testing ensures that our products meet the highest standards of safety and performance, making them the ideal choice for airport applications.





Safe & Strong

Successful Frangibility Crash Tested at Narnaul Airport in India and Successfully tested at PMG Technologies in Blainville, Quebec Canada in presence of Intertek FAA approved Test Inspection Agency



Compliance

Compliance with FAA AC 150/5345-45C and Compliance with ICAO guidelines Aerodrome Design Material Part-6 Frangibility Doc 9157 First Edition – 2006 chapter5

Certification

Third party full crash test certificate as per compliance for full impact testing with ICAO guidelines Aerodrome design manual Part-6, chapter 5 and US department of transportation, FAA Advisory circular No 150/5345, April 2007

Comprehensive Solutions: From Supply to Installation

At ILLUSTRO, we provide complete turnkey solutions for SGS frangible towers and poles, from the initial supply and delivery to installation and maintenance. With our extensive experience and expertise, we ensure that your meteorological systems, approach lighting, and glide path masts are installed with the highest level of precision and safety.

Partner with ILLUSTRO today for frangible tower solutions that prioritize both strength and safety for your airport infrastructure.



Installation of Frangible Structures for Airports in Thailand by ILLUSTRO.

Installation in accordance with the airport's standards, by ILLUSTRO.

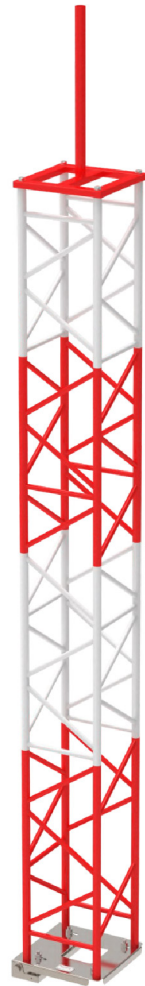
ILLUSTRO is also capable of constructing structures to support essential and crucial frangible structures for airports, carried out by our team of expert engineers, in compliance with airport standards.



Installation of Frangible Structures for Airports in Thailand by ILLUSTRO.



**POLE FOR
VISIBILITY SENSOR**



**6 METER
METEOROLOGICAL
TOWER**



**10 METER
METEOROLOGICAL
TOWER**



**10 METER
METEOROLOGICAL
TOWER**



*Meteorological Towers –
Installed at Samui International Airport
by ILLUSTRO*

Meteorological Towers and Poles

SPECIFICATIONS

Frangible Pole for Visibility Sensors

Frangible pole of variable length, bottom aluminum base, set of foundation bolts, colour aviation red & white.

6 meter Meteorological Lattice Tower

5.0 meter frangible lattice tower, 1 meter top mounting assembly, Stainless Steel bottom hinge base plate, set of 4 foundation bolts, colour aviation red & white.

10 meter Meteorological Lattice Tower with base hinge

5.0 meter bottom frangible lattice tower, 4.0 meter top lattice tower, 1 meter top mounting assembly, fixed center assembly, Stainless Steel bottom hinge base plate, Set of 4 foundation bolts, colour aviation red & white.

10 meter Meteorological Lattice Tower with center hinge

5.0 meter bottom frangible lattice tower, 4.0 meter top lattice tower, 1 meter top mounting assembly, center hinge assembly with accessories, hinge rope set, set of 4 foundation bolts, Stainless Steel bottom hinge base plate, colour aviation red & white.

Standard Accessories

SPECIFICATIONS	
Foundation Template	Metallic foundation template.
Enclosure Mounting	Universal mounting fixture (Set of 2), mounting bracket & standard mounting nut/bolts kit suitable for all types of enclosure & battery box.
Cross Arm	1.8 meter cross arm with vertical sensor mounting assembly.
Sensor Mounting Arm	1.2 meter aluminum sensor mounting arm with accessories suitable for Temp/Humidity sensor and solar radiation sensor.
Pole Mounting	Universal mounting kit for pole suitable for all types of enclosure & visibility sensor.
Lightning Arrester Kit	175 cm Copper rod with spool, 50 sq mm 14 meter Copper earthing wire, connecting thimbles, 2 meter ground copper rod/strip.
Obstruction Light Single Lamp	LED obstruction light single lamp, Complaint to ICAO (Aerodromes Annexure 14) and FAA - 180, Aviation Red Colour, Selectable flashing rate, AC 110V ~ 220V, Auto light sensing ON/OFF.
Obstruction Light Dual Lamp	LED obstruction light dual lamp, Complaint to ICAO (Aerodromes Annexure 14) and FAA - 180, Aviation Red Colour, Selectable flashing rate, AC 110V ~ 220V, Auto light sensing ON/OFF.



CROSS ARM SET



ENCLOSURE MOUNTING (SET OF 2)



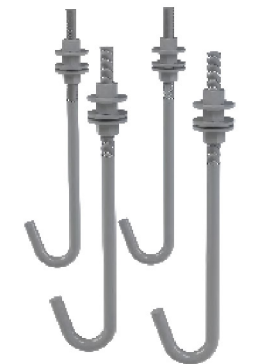
CENTER HINGE (ALUMINUM CASTING)



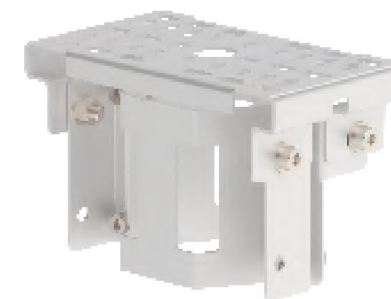
STAINLESS STEEL BASE HINGE



SENSOR MOUNTING ARM (ALUMINUM)



SET OF FOUNDATION BOLTS (4 NOS.) INCLUDED WITH TOWER



UNIVERSAL MOUNTING FOR POLE



LED OBSTRUCTION LIGHT SINGLE LAMP



LED OBSTRUCTION LIGHT DUAL LAMP



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