



CATALOG 2022

FRANGIBLE TOWERS & POLES  
FOR METEOROLOGICAL  
SYSTEMS

Meteorological Towers and Poles in Compliance  
for Full Impact Testing with ICAO guidelines  
Aerodrome Design Manual Part-6, chapter 5 and  
US Department of Transportation, FAA Advisory  
Circular No 150/5345-45C, April 2007

SGS FRANGIBLE TOWERS (P) LIMITED

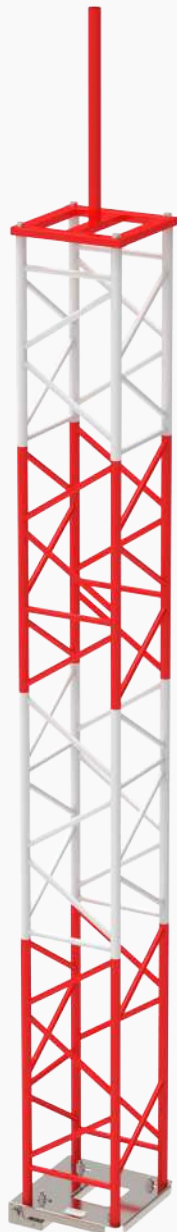
SAFE & STRONG



10 METER  
METEOROLOGICAL  
TOWER  
AT 4050-10 CH



10 METER  
METEOROLOGICAL  
TOWER  
AT 4050-10 BH



6 METER  
METEOROLOGICAL  
TOWER  
AT 4050-06 BH



CROSS ARM SET  
CA 180



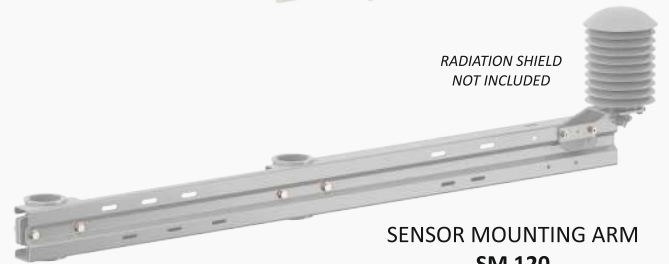
ENCLOSURE MOUNTING  
(SET OF 2) EM 522



STAINLESS STEEL  
BASE HINGE  
INCLUDED WITH TOWER



CENTER HINGE  
(ALUMINUM CASTING)



RADIATION SHIELD  
NOT INCLUDED

SENSOR MOUNTING ARM  
SM 120

VISIBILITY SENSOR  
NOT INCLUDED



POLE FOR  
VISIBILITY  
SENSOR  
PT 9060



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



UNIVERSAL MOUNTING  
FOR POLE UM 122



LED  
OBSTRUCTION LIGHT  
SINGLE LAMP OL 201



LED  
OBSTRUCTION LIGHT  
DUAL LAMP OL 202

**MODELS  
&  
ACCESSORIES**

# SAFE & STRONG

SGS Frangible Towers Pvt. Ltd. is a leading manufacturer of frangible towers, mast and poles for hoisting weather equipments (AWOS), approach lights, glide path mast etc. for airports. Both lattice and pole type frangible structures are manufactured for various airport applications. The towers and mast are made of fibre glass composites and resins to give frangibility in the products for strength and durability against high wind & jet blast.

Full impact testing was carried in compliance with U.S Department of Transportation Federal Aviation Administration (FAA), advisory circular No 150/5345 45c, section 3.9 and 4.2.5 and International Civil Aviation Organization (ICAO) doc 9157 An/901 part 6, subsections 4.9.20, 4.9.21, and 4.9.22

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



## FEATURES

### STANDARD PRODUCTS

#### METEOROLOGICAL TOWERS

- 6 METER TOWER AWOS
- 10 METER TOWER WITH BASE HINGE
- 10 METER TOWER WITH CENTER HINGE
- POLE FOR VISIBILITY SENSOR

#### WIND SOCK MAST

- 5 METER MAST
- WITH EXTERNAL LIGHTNING

#### 8 METER LIGHTNING

- WITH EXTERNAL LIGHTNING

#### 3 METER VIGILANCE CAMERA POLE

- POLES FOR AIRPORT LIGHT APPLICATION

- ✓ STRICTLY COMPLIANCE OF FRANGIBILITY WITH ICAO AND FAA GUIDELINES
- ✓ FOLLOW ALL SAFETY REGULATIONS
- ✓ TESTED UNDER THIRD PARTY SUPERVISION
- ✓ CORROSION - FREE TOWER AND ACCESSORIES
- ✓ UV - RESISTANT PU PAINT WITH 3 YEAR WARRANTY
- ✓ 5 YEARS MANUFACTURING DEFECT WARRANTY ON COMPLETE TOWER
- ✓ NO ELECTRO-MAGNETIC INTERFERENCE
- ✓ FACILITY FOR CUSTOMIZATION
- ✓ PROMPT DELIVERIES
- ✓ ASSURE DURABILITY
- ✓ LIGHT WEIGHT
- ✓ ALL STANDARD INSTRUMENTS MOUNTINGS AVAILABLE

### CUSTOMIZED PRODUCTS

#### CAMERA MOUNTING TOWERS

#### FRANGIBLE FENCING

#### MOUNTING FOR SPECIFIC SENSORS

#### TAILOR MADE FOR SOLAR PANEL MOUNTING

#### CUSTOMIZED FLOOD LIGHT POLES AND TOWERS

# ORDER DETAILS

DESCRIPTION	SPECIFICATIONS	ORDER CODE
<b>6 meter Meteorological Lattice Tower</b>	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.	AT 4050 - 06 BH
<b>10 meter Meteorological Lattice Tower with base hinge</b>	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.	AT 4050 - 10 BH
<b>10 meter Meteorological Lattice Tower with center hinge</b>	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.	AT 4050 - 10 CH
<b>Frangible Pole for Visibility Sensors</b>	Frangible pole of variable length, bottom aluminum base, set of foundation bolts, colour aviation red & white.	PT 9060 - 03 BP

## STANDARD ACCESSORIES

<b>Foundation Template</b>	Metallic foundation template.	FT 500
<b>Enclosure Mounting</b>	Universal mounting fixture (Set of 2 ), mounting bracket & standard mounting nut/bolts kit suitable for all types of enclosure & battery box.	EM 522
<b>Cross Arm</b>	1.8 meter cross arm with vertical sensor mounting assembly suitable for wind speed & direction sensor.	CA 180
<b>Sensor Mounting Arm</b>	1.2 meter aluminum sensor mounting arm with accessories suitable for Temp/Humidity sensor and solar radiation sensor.	SM 120
<b>Pole Mounting</b>	Universal mounting kit for pole suitable for all types of enclosure & visibility sensor.	UM 122
<b>Lightning Arrester Kit</b>	75 cm Copper rod with spool, 50 sq mm 14 meter Copper earthing wire, connecting thimbles, 2 meter ground copper rod/strip.	LA 102
<b>Obstruction Light Single Lamp</b>	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.	OL 201
<b>Obstruction Light Dual Lamp</b>	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.	OL 202
<b>Packaging</b>	Wooden carate packaging/steel cage packaging as per the transportation needs.	WP 901



## COMPLIANCE

- Compliance with FAA AC 150/5345-45C and Compliance with ICAO guidelines Aerodrome Design Material Part-6 Frangibility Doc 9157 First Edition – 2006 chapter 5.
- Wind load deflection test
- Salt Spray Test as per MIL-STD- 810F & ISO 9227: 2017
- Temperature Resistance Test -35° C to + 55° C
- Flammability Test IS : 6746 - 1994
- Di-Electric Strength Test : ASTM D 149:2009.
- UV Resistance Test ASTM G 154 : 2016/IS-14887
- Tensile Strength Test : ASTM D638
- Flexural Strength Test : ASTM D790
- Flame Spread & Smoke develop Index test ASTM E84

## 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



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Specifications/technical details included are subject to change without notice.