



Heliport



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With more than 25 years of experience, the team behind AirSea Technology delivers high end equipment and world class service to airports, heliports, high rise buildings, wind turbine farms, and waterways.

Our deep industry knowledge and hands on expertise ensure that every customer receives reliable solutions tailored to the most demanding environments.

We take pride in offering state of the art products that not only meet the highest international standards but also prioritize environmental responsibility.

Our portfolio is built on strong partnerships with leading global manufacturers known for their uncompromising quality and innovative engineering.

At AirSea Technology, exceptional service and support are at the core of everything we do.

From installation and maintenance to long term operational reliability, we are committed to keeping your critical infrastructure running safely and efficiently.

If your Heliport is missing essential equipment, we are ready to assist.

Get in touch with us – we're here to help.



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CHARACTERISTICS

LUMINOUS	
Luminous source	White flash LEDS
Horizontal beam spread	360°
Vertical beam spread	0° to 10°
Luminous Intensity	> 1 700 Cd at 0° > 2 500 Cd between 1,5° & 2,5° > 1 700 Cd between 3° & 4° > 750 Cd between 5° & 7° > 250 Cd between 8° et 10°
Flash frequency	Morse H Code
MTBF	100 000 hours
ELECTRICAL	
Voltage	240V AC / 50 Hertz
Operating temperature	-55°C to +55°C
Current I _{max}	In 230V: I < 500mA
Protection class	IP66
MECHANICAL	
Box material	Zamac
Body lamp material	Aluminum
Lens material	Polycarbonate
Mounting	M8 screw (in option)
Height / Width	410mm / 410mm
Weight	< 16 Kg
ENVIRONMENTAL	
Humidity	100%
Frost	-60°C
Wind speed	240 Km/h
CERTIFICATIONS	
CE	EN60947-1 CEI60364, NF C15-100 2014 / 35 / UE
OACI	Annex 14, Volume I, Chapter 5
Quality	ISO 9001 ; 2015
WARRANTY	
Warranty period	2 years

DESCRIPTION

The **AST-HB Beacon** is a heliport white light, monobloc, given LED technology. It offers significant advantages in terms of lifetime (100 000 hours), sturdiness and energy consumption. The ruling of the light can be achieved through a deported command system (UPS, control panel). The photocell for automatic night ignition and the dry contact are both in option. Our heliport beacon gives out series of 4 flashes, every 1.2 second (Morse H Code – in standard other code are possible). Its compact design facilitates its installation.

ADVANTAGES

- Lifetime > 10 years
- Multi-LEDs technology
- Low Consumption
- No Maintenance
- 2-year warranty
- Zamac box with epoxy paint
- Wiring on terminal block, cable gland output

APPLICATIONS

It is recommended to install a Morse Code Helipad Light on a Heliport: When visual guidance on a long distance is ruled necessary and when that visual guidance is not handled by other means. When it is difficult identifying the Helideck because of the surrounding lights.

The heliport light will be placed on the helipad or next to it, preferably on a lifted point in a way that the pilots are not dazzled at low distance.

MODELS

REFERENCE	VOLTAGE	PHOTOCELL	DRY CONTACT
AST.HB-H00MB	110-240V	Not included	Not included
AST.HB-H11MB	110-240V	Included	Included

AST Heliport Wind Direction Indicator

DESCRIPTION

The AST.STNA WDI is our ICAO-compliant mast with integrated lighting.

This tilting mast is available in heights of 3 or 4 meters to the windsock center point.

The standard windsocks have a diameter of 60 or 90 cm, but other sizes are available upon request.

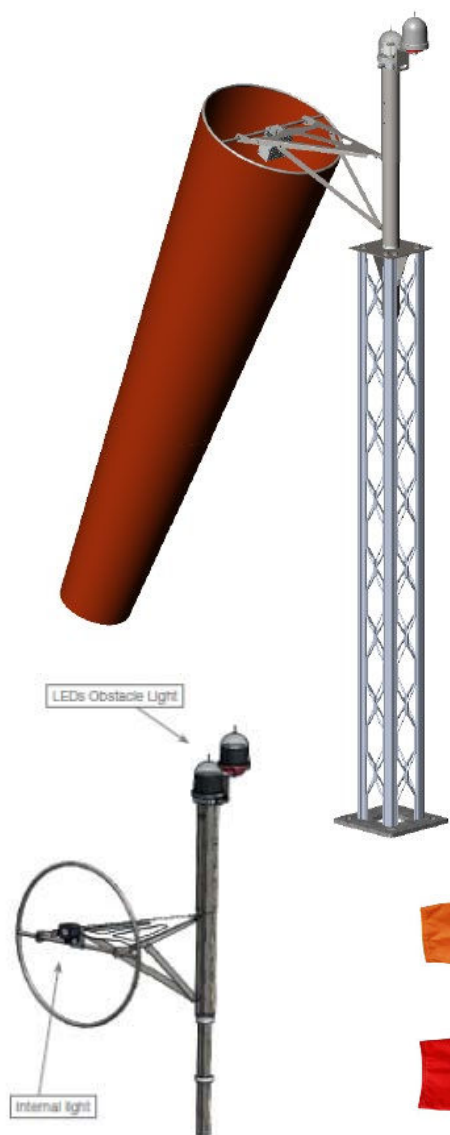
The windsock support is fitted with two self-lubricating Teflon rings, ensuring smooth rotation.

This system is highly resistant to wear and requires no maintenance, providing an exceptionally long service life.

The top section is manufactured from stainless steel, while the mast itself is made from AmpliSafe® material and available in yellow or red/white.

The mast is supplied with a tilting mechanism.

(Windsock must be ordered separately.)



Windsock		
Ordering Code:	size	Colour
AST.WS-AA	60/240 or 90/360 or Sp*	OR or R/W

Ordering Code:	WS Diameter	Height	Mast Colour	Power	Top Beacon
AST.WDI-	60 or 90 or Sp*	3** or 4 or 7	Y or R/W	230	R or IR
AST.WDI-	60 or 90 or Sp*	3** or 4 or 7	Y or R/W	48	R or IR
AST.WDI-	60 or 90 or Sp*	3** or 4 or 7	Y or R/W	SOL	R or IR
AST.WDI-	60 or 90 or Sp*	3** or 4 or 7	Y or R/W	6,6	R or IR

* - Specify through opening and length of Windsock. (Ex. 60x240 cm)

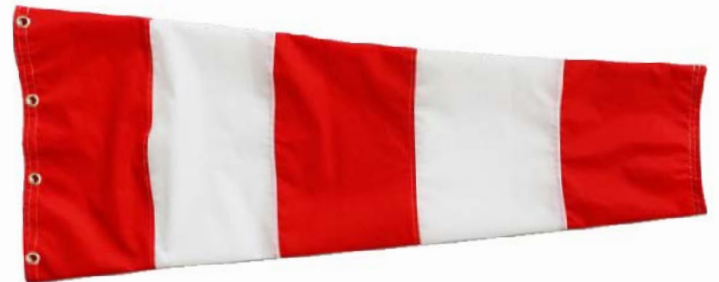
** - Only Ø60 cm Windsock available

Environment	
Operating Temp	-55°C to +55°C
Wind Speed	160 Km/h
Protection Class	IP66

Certification	
CE	EN60947-1 CEI60364, N C15-100 2014 / 35 / EU
ICAO	Annex 14, Volume 1, Chapter 4
Qualirt	ISO 9001 : 2015

Winsock - Red/White or Orange

- Manufactured from UV resistant woven polyester 190 gm2
- PU coated material available, 230 gm2
- Finished with double stitching
- Complete with Heavy duty brass grommets for fixing
- Red & white or fluorescent orange as per ICAO specifications .
- Treated for rot, mildew and weather resistance
- Windsock fly horizontal at around 20 Knots
- Max speed: 75 Knots - 140 km/hr
- **Available size:**
- **See ordering code**
- **Other size available on request**



Ordering Code:

AST.WS-AA-30/120-RW	Ø30 x 15 x 120 cm Red/White
AST.WS-AA-30/120-OR	Ø30 x 15 x 120 cm Orange
AST.WS-AA-40/250-RW	Ø45 x 22 x 250 cm Red/White
AST.WS-AA-40/250-OR	Ø45 x 22 x 250 cm Orange
AST.WS-AA-50/150-RW	Ø50 x 25 x 150 cm Red/White,
AST.WS-AA-50/150-OR	Ø50 x 25 x 150 cm Orange
AST.WS-AA-60/240-RW	Ø60 x 30 x 240 cm Red/White
AST.WS-AA-60/240-OR	Ø60 x 30 x 340 cm Orange
AST.WS-AA-90/360-RW	Ø90 x 45 x360 cm Red/White
AST.WS-AA-90/360-OR	Ø90 x 45 x360 cm Orange
AST.WS-AA-90/375-RW	Ø90 x 45 x 375 cm Red/White
AST.WS-AA-90/375-OR	Ø90 x 45 x 375 cm Orange

DATASHEET Perimeter Light

5" INSET LED-LIGHTS for Heliports: Semi Flush & Full Flush



The AST Series 5" Inset LED-Lights are designated as Visual Aids for Heliports or Helidecks on Land, offshore and on Vessels

FEATURES

- Optimized light output due to patented optics concept
- Fully compliant to ICAO Annex 14 Vol 2., FAA EB 87 and CAP 437
- Fully resistant against intrusion of liquids, dusts and mechanical shocks due to sealed optics and electronics
- No fogging
- CE Certified
- Compact and low propulsion
- Optimized for integration in elevated Helipads
- Safety Extra Low Voltage compliant
- Enhanced surge current protection
- Corrosion resistant anodized Aluminum-housing
- NVG Option available

Ordering code:

Semiflush Inset Light:

AST.TLOF-SF-24-G.....Perimeter Light 24 VDC, Green
 AST.TLOF-SF-24-G-NVG.....Perimeter Light 24 VDC Green/IR
 AST.FATO-SF-24-W.....FATO Light 24 VDC, White
 AST.FATO-SF-24-W-NVG.....FATO Light 24 VDC White/IR
 AST.ADI-SF-24-W.....Flight Path Alignment 24 VDC, White
 AST.ADI-SF-24-W-NVG.....Flight Path Alignment 24 VDC, White/IR

Full Flush Inset Light

AST.TLOF-FF-24-GPerimeter Light 24 VDC Green
 AST.TLOF-FF-24-G-NVG.....Perimeter Light 24VDC Green/IR
 AST.FATO-FF-24-GFATO Light 24 VDC White
 AST.FATO-FF-24-G-NVGFATO Light 24 VDC White/IR
 AST.ADI-SF-24-W.....Flight Path Alignment 24 VDC, White
 AST.ADI-SF-24-W-NVG.....Flight Path Alignment 24 VDC, White/IR

TECHNICAL DATA

Operatring Voltage:	24 VDC or 6,6A
Dimming:	0-100%
W/NVG option	IR continous on
InfraRED (NVG option)	240mW @ 850 nm
Usefull Lifetime	>100.000 hour
Operating Temp	-40°C to +55°C
Protection Class	IP 68
Storage Temperatur	-40°C to +85°C
weight	0,65 Kg
Package dimension	190x090x160 mm
Package weight	0,9 Kg

In compliance with

- ICAO Annex 14 Vol 2. Heliports, 4. Edition
- ICAO Annex 14 Vol 1. Aerodrome Design and Operation
- ICAO DOC 9261 Heliport Manual
- ICAO DOC 9157 Aerodrome Design Manual Part 4 (Visual Aids)
- EASA CS HDR DSN
- FAA AC 150/5345-46E Specification for Runway and Taxiway Light Fixtures
- FAA AC 150/5390-2C Heliport Design
- FAA Engineering Brief 87 Heliport Perimeter Light for Visual Metrological Conditions
- FAA Engineering Brief 67D Light Sources others than Incandescent and Xenon
- CAA CAP 437 Standards for O'shore Helicopter Landing Areas
- CASA CAAP 92-2 Guidelines for the establishment and operation of onshore Helicopter Landing Sites
- IEC TS 61827 Electrical Installations for Lighting and Beaconing of Aerodrome

LIGHT DISTRIBUTION

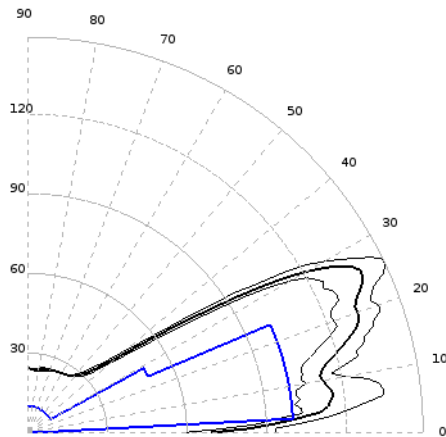


Figure 1: Light distribution FATO (white) ICAO

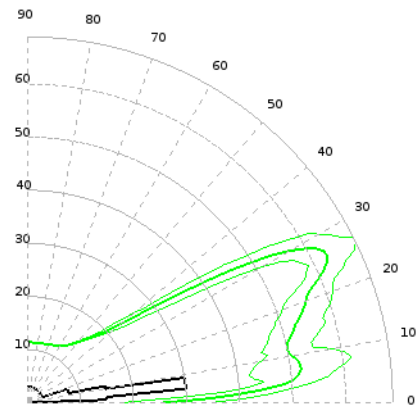


Figure 2: Light distribution TLOF (green) ICAO

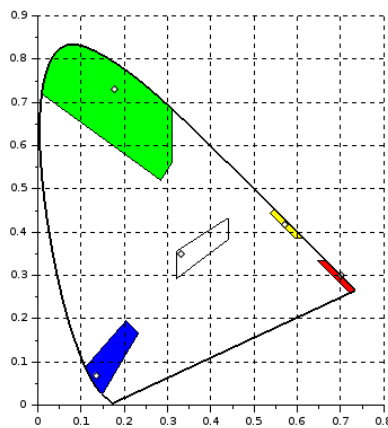
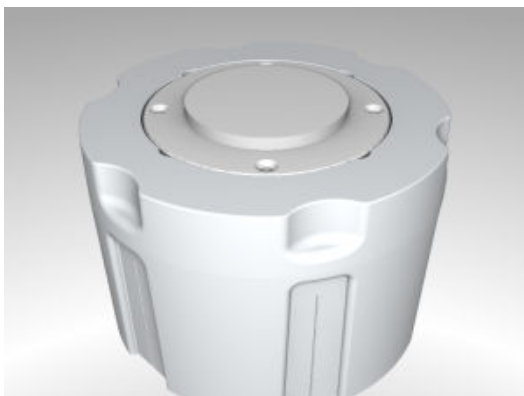
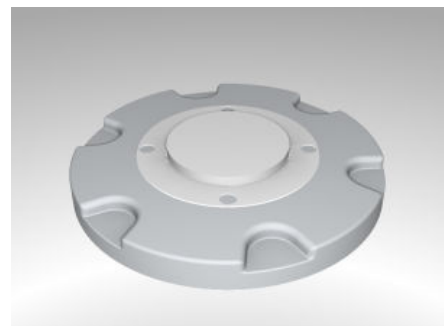


Figure 3: Color Coordinates



Shallow Base



5" to 8" Adapting
Option:Hearting

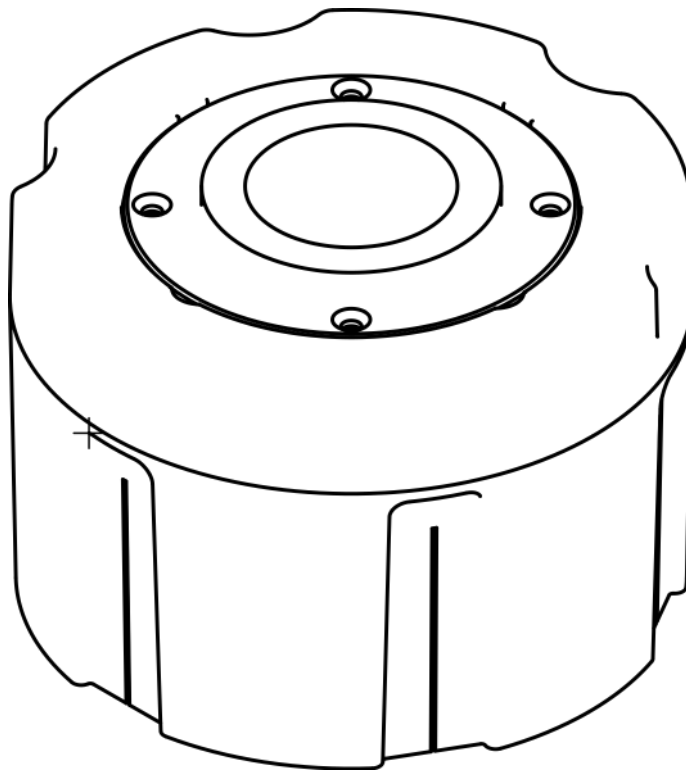


Figure 1: AST-SB with AST Inset Light

The AST Series Shallow Base is designated for the installation of AST 5" inset LED Perimeter Lights.

Referred Standards

- FAA AC 150/5345-46E Specification for Runway and Taxiway Light Fixture
- IEC TS 61827 Electrical installations for lighting and beaconing of aerodromes

FEATURES

- Corrosion resistant Aluminum die-cast housing
- Optimized dimensions for minimum coring diameter and depth with optimized volume for comfortable handling of connectors, installation and placement of joints and terminators
- Water and dust proof

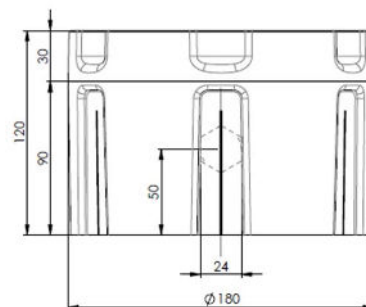
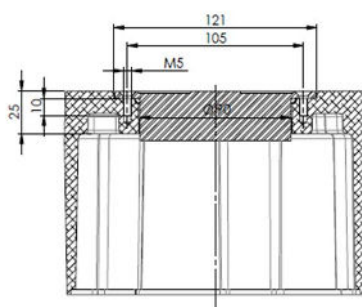
TECHNICAL DATA

Function	Value
Outer Ø:	180 mm (suitable for 200 - 220mm core holes)
Over all depth:	120 mm
Inner Ø	140 mm
Inner depth	92mm
Bearing strength:	8.15 t
Protection class	IP68 (with appropriate installed light AST series)

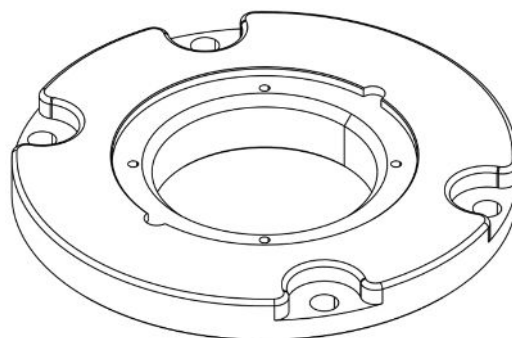
VARIANTS

Variant	Description
AST-SB-HEL-0	Bottom hole $\varnothing$ 77mm for Pipes and Ducts DN75 (Outer $\varnothing$ 76mm) according to IEC/EN 61834-24 - No Cable Glands
AST-SB-HEL-1	Bottom hole $\varnothing$ 77mm for Pipes and Ducts DN75 (Outer $\varnothing$ 76mm) according to IEC/EN 61834-24 - 1 Cable Glands M20x1,5
AST-SB-HEL-2	Bottom hole $\varnothing$ 77mm for Pipes and Ducts DN75 (Outer $\varnothing$ 76mm) according to IEC/EN 61834-24 - 2 Cable Glands M20x1,5

DIMENSIONS



5"-8" Adaptor Ring, with or without deicing/heating



- Compatible with AST 5" LED Inset Lights Flush fit into 8" shallow base
- Watertight due to radial sealing
- Integrated electrical deicing kit optional available
- High bearing strength
- Low maintenance effort with recommended mounting concept

Design Concept

- Accroding IEC 61827
- Corrosion resistant material
- Easy installation

Referred Standards

The 5-8" Adaptor Ring complies with the following industry regulations:

- FAA AC 150/5345-46E Specification for Runway and Taxiway Light Fixture/ 2016
- IEC TS 61827 Electrical installations for lighting and beaconing of aerodromes/ 2014

Product Specifications

Mechanical Data

Height	Total / Above Surface	28.5mm / 0mm
Installation Diameter	Outer / Mid / Inner	Ø203mm / Ø90mm / Ø122mm
Bearing Strength	11t	
Weight	2.6kg	
Packing Dimensions	220 x 220 x 35mm	
Gross Weight	3.0kg	
Material	Adaptor Ring	Aluminium
	Sealing	EPDM
Recommended Mounting	5" LED Inset Light	4x M5x10mm
	Adaptor Ring	4x M10x30mm (MagentaLock Safety Bolts)

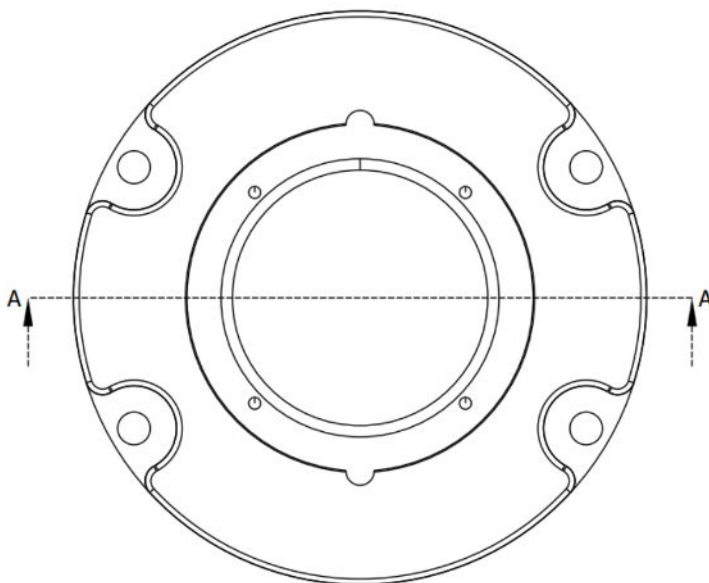
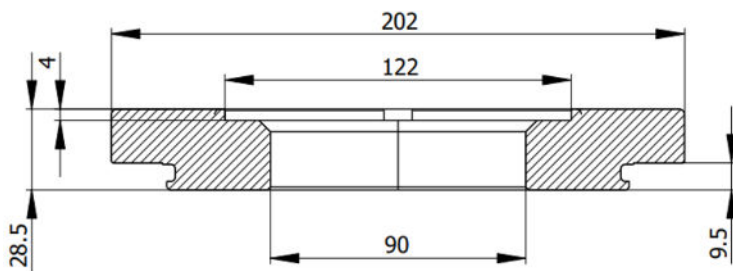
Product Specifications

Electrical Data

Accessories

AST 5" LED Inset Light

Dimensions



Ordering code:

AST.AR-85

AST.AR-85-HEAT (with deicing)

Model 800 LED Visual Approach Slope Indicator (VASI)

Designed to Meet the Special Requirements of Helicopter Landings

The helicopter Visual Approach Slope Indicator (VASI) was developed as a landing aid for helicopter flight. It is specially designed to accommodate the helicopter's steep angles of descent and deliberate speeds.

Three Color Design

Three wide horizontal beams of different colored light are projected in fan shaped array into the incoming flight pattern. The top beam (yellow) indicates a too high altitude of approach. The center beam (green) is the correct altitude and the lower beam (red) is a too low altitude. By staying within the green (correct altitude) light beam, the correct slope is maintained to touch-down. An ideal control for training students.

Normal Beam Dimensions

At a distance of one half mile: the green beam (correct altitude) is 300 feet high; the yellow beam (too high altitude) is 565 feet high; the red (too low) beam is 265 feet high. All of the three beams are 900 feet wide, on each side of vertical. The dimensions of this pyramid shaped cone of colored beams may be varied and ordered to accommodate special landing problems. Special color arrangements such as red on top, clear in the center and red of the bottom, are also available.

Visibility

Optical elements, combined with special color filters, provide clear color visibility. The VASI may be seen for up to one half-mile in daylight and up to one mile at night.

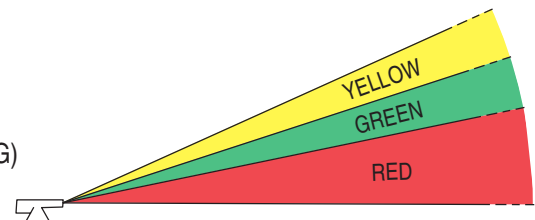
Height Settings

The VASI is easily adjusted. Normal height settings for the bottom of the green (correct altitude) beam range from 0° to as high as 15°. A 1/2° vernier scale provides accurate positioning. Heavy pressure screws are provided to secure the settings in place.



FRONTAL VIEW
OF ELEVATIONS
(WITH 6° SETTING)

HELIPORT



Light Source

The VASI has an energy efficient LED light source. The VASI is powered by 120 VAC or it may be ordered to operate from other inputs, if desired.

Installation and Maintenance

The VASI is normally placed on the border of the landing area on the near side, facing into the landing pattern. It has a low profile, being 12 inches high, 8 inches wide and 16 inches long and is constructed of heavy cast aluminum that is weathertight and finished in orange polyester powder coating.



Model 800 LED Visual Approach Slope Indicator (VASI)

Specifications:

Housing	Aluminum casting
Support	Aluminum casting
Lamp	LED
Mask Assembly	Three colors
Power Input	120 VAC, or other
Dimensions:	
Height	12"
Width	8"
Length	16"
Finish	Orange polyester

LED VASI Photometrics:

Vertical

Color	Angle from Center	Lux at 3m
Amber	7	130
Amber	3	260
Green	3	115
Green	0	230
Green	-3	115
Red	-3	30
Red	-7	15

Horizontal

Color	Angle	Lux at 3m
Green	30 (full width)	40
Green	13	115

The HAPI system is a visual slope guidance aid to assist the pilot in aligning the aircraft for approach to landing. It does not replace the pilot's judgment, skill and responsibility to land the aircraft safely with or without this visual aid.

HAPI is a system for use as visual slope guidance on heliports and offshore helidecks. One HAPI system is for one helicopter approach path. It is installed on the side opposite the approach, facing across the landing area. Digital leveling and aiming by means of a hand held field programming device. This may also program the alarm tolerances.

HAPI SIGNALS:



Flashing – Above Slope



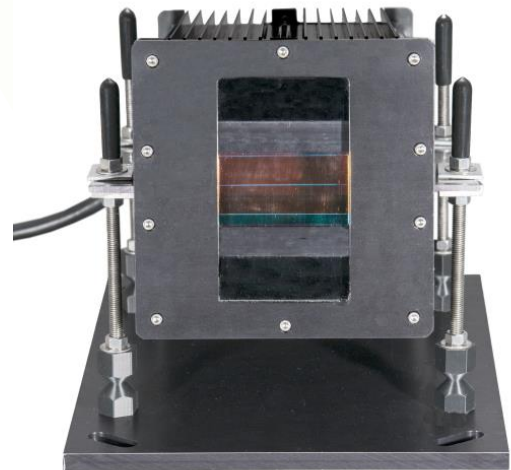
On Slope



Slightly Below Slope



Flashing – Below Slope



HAPI-89001-1-F

Ordering Code:

Point Type	Voltage	Classification	Form*	Options
AST.HAPI-89001	1: AC, 96-264V 50/60Hz 3: 24 volts DC	(blank): Safe Area EX: Class I, Division 2	F: Frangible	See page 2

Compliances:

ETL Listed to UL 1598A Marine Vessels, IP66 & IP67 ETL Listed to CSA C22.2 No. 137-M1981 & No. 250.0-08 Canada ETL Listed to UL 1598 at -40 deg C to +55 deg C
Class I, Division 2, Groups A B C D, T5 at -40 deg C to +55 deg C
Class I, Zone 2, Groups IIA IIB+H2 IIC, T5 at -40 deg C to +55 deg C
ICAO Annex 14, Volume II, Chapter 5
FAA AC 150/5390-2C, paragraphs 219, 318 & 418
ONGC (India) FS-4044, paragraph 6.6
Registered ISO 9001:2015

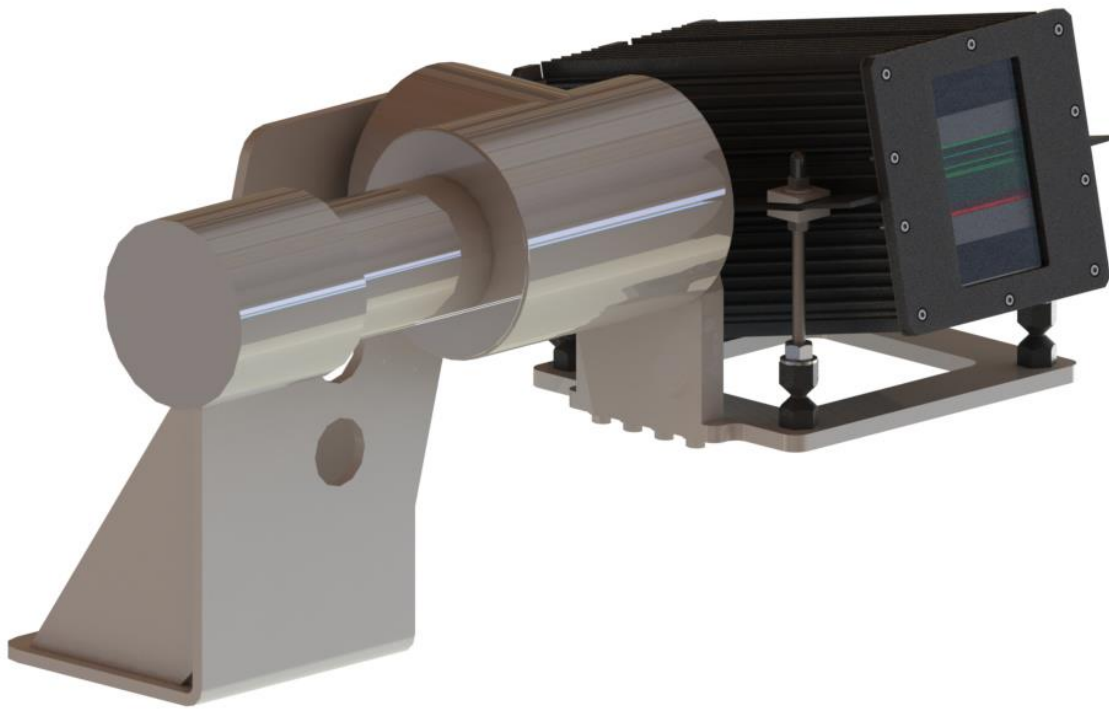
*The fra frangible universal mounting is less than 25 cm tall when installed. Frangible mounting includes four threaded legs with frangible couplings, mounting plate & anchor bolts. The HAPI includes a 3m cable loop as standard.

Weights:	lbs.	kg.	Dimensions:	L: 15.5 (394)
Light Unit	25	11.3	Light Unit	W: 12.0 (305)
Hardware Kit	15	6.8	Inches (mm)	H: 9.5 (241)
ROS/ROSW	15	6.8	Power Use:	70 watts 75 VA
PLS Assembly	12	5.4	Adjustment:	0° to 15°
PLS Assembly	14	6.4	Brightness:	Three (3) steps
			Control	
			Alarms:	Flasher Failure LED Array Failure Alignment

GYRO-STABILIZED MOUNTING OPTION -GS

This option is used for a HAPI light unit installed on a mobile marine vessel. The gyro unit stabilizes on the Bank (X) and Elevation (Y) axis so that the mounting arm with HAPI unit will always stay level, regardless of the motions of the vessel.

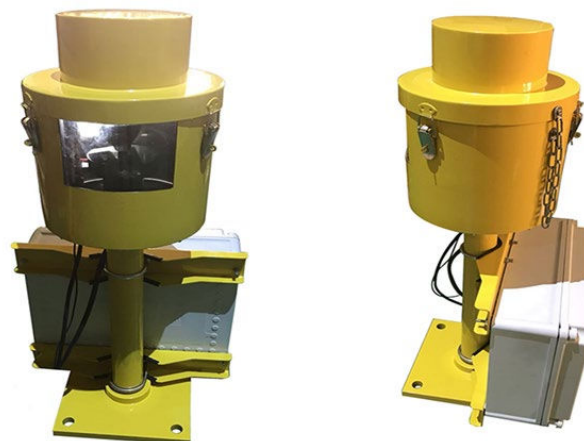
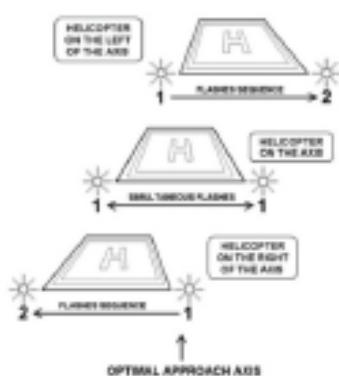
Adds 28 lbs (12.7 kg) to the weight of the HAPI light unit.



AirSea Approach Azimuth Guidance System

The AirSea SAGA (System of Azimuth Guidance for Approach) provides a combined signal of approach azimuth guidance and threshold

Item Name	Heliport AST. SAGA system (System of Azimuth Guidance for Approach)
Model No.	CM-HT12-SAGA
Lamp	One 12Vac 105W pre-focused halogen reflector lamp
Power Supply	110V-230Vac, 50-60Hz
Power Consumption	Less than 250W for the SAGA system and 240W maximum for the heating resistores
Visual Range	10 nautical miles in standard visibility conditions
Operation Angular Sector	15 Degrees on both side of approach axis
Axis Accuracy	+/- 0.45 degree in azimuth
Delay Between Flashes	From 60 to 300 ms
Flashes Frequency	0.5Hz
Material	Body,cap and support are in aluminium alloy,phosphated and painted in aviation yellow.All fixing sand fastenings are stainless steel.The power supply box is made of reinforced polyester.
Working temperature	From -40°C to +50°C
Remote CMS	Remote control from 48Vdc.Monitoring feed back signal using two dry contacts(contact capacity=250V/1A maximum).
It will comprise of 2 flashing units(master and slave) located symmetrically on both sides of the runway or TLOF for heliport threshold.	



ORDERING CODE
AST.CM-HT12/SAGA

In compliance with:
ICAO: Annex14 Volume II Paragraph 5.3.4



For more information
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