





















## **HIGH MAST**

**APPLICATION** 

- Road Junction
- Railway
- Car Parks
- Sports Stadium
- Airports
- Motorways
- Container Depots
- Dock Yards
- Service Yards Security
- Lighting















# VENTURA LIGHTING LIMITED A SUBSIDIARY OF

#### VENTURA LIGHTING AND INFRATECH LIMITE

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# **High Mast & Polygonal Poles**



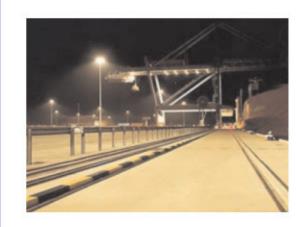


High Mast Systems

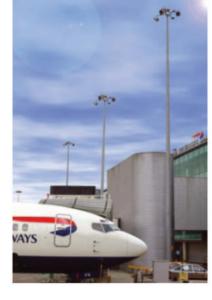
Sports Lighting

Poles

Lighting Columns & Brackets



Ventura lighting produces international quality products and solutions for all forms of exterior lighting; aim is to satisfy the needs of our customers with high performance products & international level lighting designs delivered on time and supported with technical advice. We seek to inspire clients to improve lighting standards, to use less energy, to control light pollution and to reduce crime and instill a sense of



#### **High Mast Lighting**

High Mast Lighting is the most efficient method for lighting large areas with the minimum number of obstructions. Ventura lighting's strength unlike others lies in its pool of intellectual capital deployed for constant improvement and has its own Software for this purpose including a fully equipped Photometric lab.

#### **Mast Structure**

The Masts are continuously tapered and polygonal shaped presenting good visual appearance. Masts are often made to suit clients' particular requirements

All our welders are qualified and use high quality welding wires for welding.

#### **Mast Construction**

All steel used in the fabrication of the masts comply to BS EN 10 025. Welding is in accordance with BS EN ISO 1011/IS 10178.

The masts are constructed from mild steel plates cut and folded to form

A door is provided at the base of the mast to permit clear access to equipment. The door is weather and vandal resistant with heavy duty lock gussets provided between bolt holes for additional strength & security. The mast is stress fitted at site supplied in sections and thus forming a sleeve joint. No site welding or bolted joints are permitted.

The entire mast is hot dip galvanised after fabrication, internally and externally in accordance with BS EN ISO1461. Our zinc bath of 13m (L) x 1.05 x 1.25m (D) is capable of single dip hot galvanizing for better finish.

#### **Mechanical Arrangements**

For installation and maintenance it is possible to raise or lower the lantern carriage using a winch in the base of the mast. The steel wire ropes supporting the lantern carriage are in tension at all times to prolong rope life & provide safety of the Lantern Carriage.

#### **Custom made**

Ventura Masts & Poles are manufactured as per clients specifications to International standards and type tested for Wind Tunnel Tests.



#### **Ventura Lighting High Masts**

- For complete design, manufacture and installation of high mast
- We provide flexible metallic conduits to protect the electrical wires from the luminaries to CG box connection.
- The material of construction of the pulley is die-cast (LM-6) aluminum alloy. The pulley assembly is complete with self lubricating stainless steel spindles.
- VENTURA PVC buffer tubes are provided inside the lantern rings or better quality and preventing the scratching on the mast.
- Both fixed and portable power tool can be supplied as per the
- All the bolts, nuts, thimbles and other fitting accessories are made of Stainless steel material.
- The electrical items used in the feeder pillar are of high quality. We use our own cable for durability & long life.
- Unique double drum winch ensures smooth and maintenance free operation. At least 6 turns of SS wire rope remain in tension on the drum even when the lantern carriage is fully lowered.
- Standard maintenance and instruction manual for smooth & easy operation is provided.
- The weather-proof cast aluminum junction boxes (IP-55) are provided on the Lantern Carriage assembly from which the interconnections are made to the designated number of floodlight fittings on the carriage.
- Our Engineering department is constantly working with clients, site personal to give the best structural strength and better mechanical arrangements.



# **HIGH MAST**

## **Advantage Ventura**

#### Our Facilities:

In house Structural Design Centre.

In house Lighting Design Cell equipped with latest softwares.

Photometry Laboratory with moving mirror photogonio meter.

High Masts tested for wind tunnel ISO 9001.







Designing of Masts, Lighting, foundations as per your requirement.

Timely Delivery at short notice.

RANGE OF HIGH MAST SYSTEMS With the widest possible range of high mast systems from 10m to 40m. Various height poles and specially made hinged mast for any project requirement.

SPECIALIST INSTALLATION TEAM A specialist Civil Works / Electrical team compliments Ventura design and manufacturing capabilities, providing turnkey service to our customers.

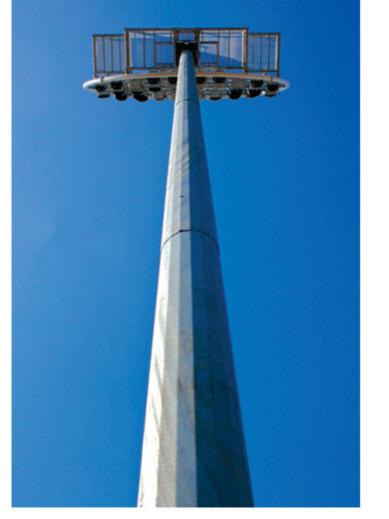
QUALITY Good quality Raw Material, adherence to legal requirements codes & specifications.

COMPETITIVE PRICE Ventura Lighting offers the best price available in the market. We believe in long-term relationship with customer.

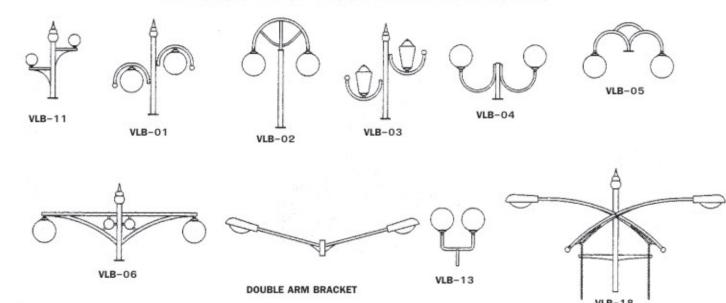
ONE WINDOW SYSTEM

VENTURA LIGHTING is a one stop solution provider for any type of Area Lighting, Sports Lighting, Structural Design and Lighting Design. We work on Turnkey Basis. Step in to our office for any type of lighting solution, starting from Soil Testing, Foundation Design, Structural Design, to Erection & Commissioning.

AFTER SALES SERVICE VENTURA provides 1 year completely free after sales service to all our customers. Its just a Phone call away to get the best service.



## **VARIOUS TYPE OF DECORATIVE ARM BRACKETS**

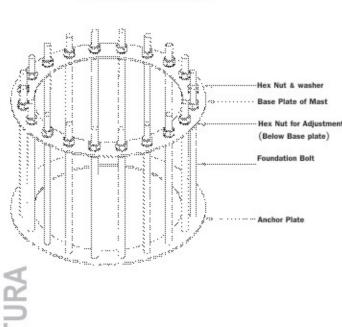


#### **Special Features For High Mast**

- Masts designed to ILE Technical Report NO. 7 with factor of safety of 2.0.
- Head Frame Three Point suspension type for better balancing of Lantern Ring. Two point suspension also available.
- Stainless Steel Wire Rope and Hardware which lasts for a long time.

#### **Special Features For Poles**

- Available in single piece 3M to 12M.
- Aerodynamic shape and mechanically strong to face wind speed up to 180 km/hr.
- Robust Door opening and locking system with weatherproof facilities to increase the life of internal accessories.









#### **Mast Head Assembly**

Consists of large Aluminum pulleys of LM 6 grade with self sustaining SS spindles housed in a chassis integrated to the pole with a sleeve slipped over the mast. The assembly is Hot dipped GALVANIZED.

#### **Lantern Carriages**

High quality steel brackets are welded to 2/3 rings for Flood light mounting. The hollow of the tubes is used for wiring of luminaries connected to junction boxes suspended from brackets fixed to the arms, the whole structure being Galvanised.

Winch is completely self-sustaining without the need for brakes, springs or clutches which require adjustment, or which can be affected by moisture or lubricant. The gear ratio is 53:1. The winches are self-lubricating by means of an oil bath as per our recommendation.

#### Winch Driving Tool

The power tool is of single speed reversible type. A remote control switch is incorporated to allow the equipment to be operated from a distance of approx 5 meters. Arrangements are provided to support the power tool accurately and securely during operation. Handles are provided for manual operation of the winches.

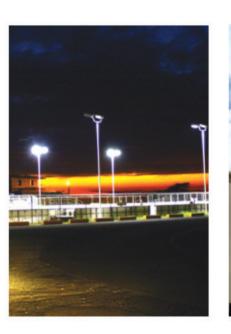
#### **Steel Wire Ropes**

Steel wire ropes are of flexible 'Marine Grade' - AISI SS 316 -stainless steel of 7/19 construction. Thimbles and terminals are of compatible material. Steel wire ropes are factory cut / terminated and pre-rigged for ease of installation.

## Cables & Cable Connections

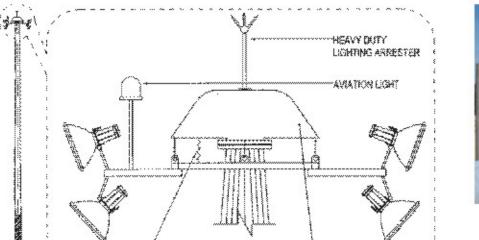
Multi core flexible round/flat power cables shall be provided, terminating in the base compartment of the mast, fitted with plugs and sockets. At the mast head, cables shall be connected to a weatherproof junction box on the lantern ring equipped with suitable PVC glands. The equipment shall be suitably rated for the required duty. Power cables shall be factory cut and pre-rigged for ease of installation.



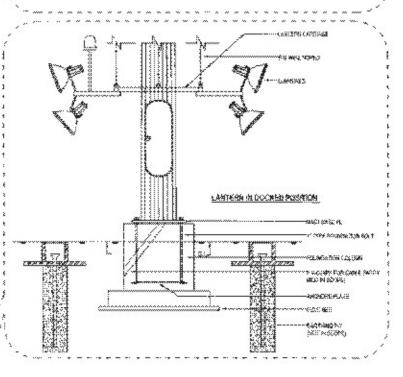














Foundations Guaranteed design & performance complete with anchor plate for casting the foundation along with medium tensile, high yield both with galvanised threading.

Earthing Terminal A 12mm diameter stainless steel bolt is attached to the mast structure for earthing.

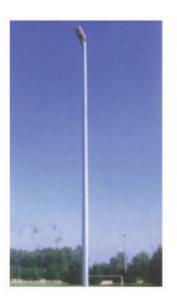
**Test Lead** Upon request from the clients, we also provide A Test lead or leads of multicore cable, equal to that within the mast and fitted with a plug and socket, can be provided to enable luminaries & cables testing when in the lowered position.

Lightening Arrestor A suitable lightening arrestor is provided on the top of the head frame.

Aviation Obstruction Lamp Aviation obstruction light as per the client's requirements is provided on the mast.

Feeder Pillar Box Feeder pillar boxes are made of powder-coated sheet metal & can be supplied as per specifications of the clients.







DIMENSION OF STANDARD SLIP JOINT POLYGONAL HIGH MAST FOR MAXIMUM WIND SPEED OF 39 m/s (140 Km/h) Series Low (L)																
Туре	Total Height		Segme	ent Details		Top Face to Face inside	Bottom Face to Face Inside	Circular Base Plate OD X thk.	P.C.D of Bolt	Size of Bolt	No. of Bolt	Door Opening	Winch	SWL Cap	No. of Fitting	Dia of Rope
		No.	Lenght	Thick	Sides									Сар		
VLHM-L 12	12000	2	6375	3.3	8	100	300	540x16	425	M16x750	6	200x1000	1 Drum	500kg	6	6mm
VLHM-L 15	15000	2	8000	3.5,3	20	100	340	575x18	460	M18x900	8	300x1400	2 Drum	750kg	9	6mm
VLHM-L 16	16000	2	8550	3.5,3	20	100	359	605x18	485	M18x900	8	300x1400	2 Drum	750kg	9	6mm
VLHM-L 20	20000	3	7250	3.5,3.5,3	20	150	420	670x20	550	M18x1200	12	300x1400	2 Drum	750kg	9,12	6mm
VLHM-L 25	25000	3	9000	5.3,5.3	20	200	455	705x25	485	M20x1200	12	300x1400	2 Drum	750kg	9,12	6mm
VLHM-L 30	30000	3	10700	5,4,3	20	200	540	790x20	670	M18x1200	20	300x1400	2 Drum	750kg	9,12	6mm
VLHM-L 40	40000	4	11000	6,5,4,3	20	200	700	900x30	800	M32x1200	20	300x1400	2 Drum	750kg	9,12,15	6mm

DIMENSION OF STANDARD SLIP JOINT POLYGONAL HIGH MAST FOR MAXIMUM WIND SPEED OF 44 m/s (158 km/h) Series Medium (M)																
Туре	Total Height	Segment Details				Top Face	Bottom Face to	Circular Base	P.C.D	Size of Bolt	No. of Bolt	Door Opening	Winch	SWL Cap	No. of Fitting	Dia
		No.	Lenght	Thick	Sides	to Face inside	Face Inside	Plate OD X thk.	Bolt		Sim	.,		-	- maring	Rope
VLHM-M 12	12000	2	6375	3,3	8	150	300	545x18	425	M18x750	6	200x1000	1 Drum	500kg	6	6mm
VLHM-M 15	15000	2	8000	3.5,3	20	150	340	575x20	460	M18x900	8	300x1400	2 Drum	750kg	9	6mm
VLHM-M 16	16000	3	5800	3.5,3.3	20	150	360	605x20	485	M20x900	8	300x1400	2 Drum	750kg	9	6mm
VLHM-M 18	1800	3	6400	4,3.5,3	20	150	440	690X25	525	M20X900	12	300X1400	2 Drum	750kg	9,12	6mm
VLHM-M 20	20000	3	7300	4,3.5,3	20	150	440	690x25	570	M20x1200	12	300x1400	2 Drum	750kg	9,12	6mm
VLHM-M 25	25000	3	9000	5,3.5,3	20	200	490	740x25	620	M24x1200	12	300x1400	2 Drum	750kg	9,12	6mm
VLHM-M 30	30000	3	10800	5,4,3	20	200	615	860x25	740	M20x1200	20	300x1400	2 Drum	750kg	9,12	6mm
VLHM-M 40	40000	4	11000	6,5,4,4	20	200	700	900x30	800	M32x1200	20	300x1400	2 Drum	750kg	9,12,15	6mm

							IMUM WI		OF 50 n	LYGONAL HIGH I n/s (180 Km/h						
Туре	Total Height		ent Details		Top Face to Face	Bettom Face to Face	Circular Base Plate OD	P.C.D of Bolt	Size of Bolt	No. of Bolt	Door Opening	Winch	SWL Cap	No. of Fitting	Dia of Rope	
VLHM-H 12	12000	No.	Lenght 6250	Thick 5,4	Sides 8	inside 100	Inside 315	X BM. 550x20	450	M24x900	6	200x1000	1 Drum	500kg	6	6mm
VLHM-H 15	15000	3	5325	5,4,4	20	200	360	575x25	460	M24x1500	6	6300x1400	2 Drum	750kg	9,12	6mm
VLHM-H 16	16000	3	5675	5,4,4	20	200	365	575x25	461	M25x1200	8	300x1400	2 Drum	750kg	9,12	6mm
VLHM-H 18	18000	3	6400	5,4,4	20	200	440	690x32	570	M32x1375	6	300x1400	2 Drum	750kg	9,12	6mm
VLHM-H 20	20000	3	7115	5,4,4	20	200	450	725x32	600	M32x1400	8	300x1400	2 Drum	750kg	9,12	6mn
VLHM-H 25	25000	3	9000	5,4,4	20	200	550	760x32	650	M32x1200	12	300x1400	2 Drum	750kg	9,12	6mm
VLHM-H 30	30000	3	10700	5,4,4	20	200	665	875x32	775	M32x1200	12	300x1400	2 Drum	750kg	9,12	6mm
VLHM-H 40	40000	4	11000	8,6,4,4	20	200	780	985x32	890	M39x1400	16	300x1400	2 Drum	750kg	9,12,15	6mm















