



# HIGH MASTS

DESIGN, MANUFACTURE, **INSTALL & MAINTAIN**



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# CU PHOSCO HIGH MASTS

CU Phosco provides an in-house end-to-end service encompassing design, manufacturing, installation and maintenance of high masts, columns, and lighting for the global market. Through design excellence, quality products, project management and a customer-centric approach, our bespoke sustainable infrastructure solutions create safer, brighter and connected environments.



## OUR HIGH MASTS

- Raise & Lower and Fixed Head Masts
- From 8m to 60m height
- Bespoke and standard design
- Vast range of applications, from airports to ports to stadiums, CCTV and telecommunications

## SUPERIOR DESIGN & BUILD

- Our masts are designed by our experienced and dedicated in house team of lighting professionals.
- Made in Britain
- Quality assurance to BS EN ISO 9001
- Designed to Professional Lighting Guide 07 and BS EN 1090
- International standards tested
- Warranty assured

## BUILT WITH CIRCULARITY IN MIND

- Responsibly sourced materials
- 100% recyclable or reusable materials
- Designed to meet exact requirements with no unnecessary raw materials required
- Built to last – rigorous testing for load, stress and design and subject to regular maintenance, the life span of our High Masts can be extended significantly



# OUR HIGH MASTS



## IN-TENSION RAISE AND LOWER HIGH MAST SYSTEM

- Uses our patented In-tension winch system.
- No work at elevated heights – easy floodlight installation and hassle-free maintenance.
- All maintenance and updates are completed at ground level.
- No latches = nothing to get stuck.
- Can use in confined spaces – no need for base hinge clearance area.
- Wire ropes kept in tension = healthy wire ropes.
- No dividers or compensators.
- Factory prepared wire ropes & power cable rigging sets.
- Light and portable power tool to be used with the winches.

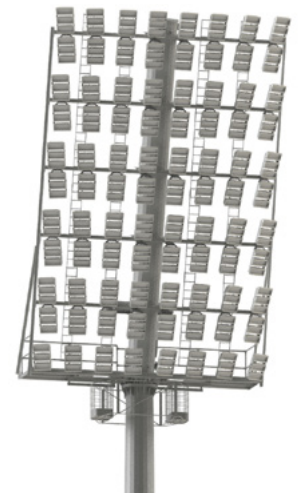
## LUMINAIRE CARRIAGES

Luminaires are mounted on a luminaire carriage made from structural circular sections. The luminaire carriage also acts as an electrical cabling conduit.

Fitted with arms for mounting the luminaires and junction box mounting plates. A rubber bumper is fitted to protect the mast shaft during the raising and lowering operations.

## ASSEMBLIES FOR FIXED HEAD MASTS

- Fixed head masts are supplied with a suitable head arrangement for mounting the luminaires.
- A platform and ladder or climbing step system can be provided to access the head for maintenance.
- Access to the head could be by MEWP (mobile elevated work platform).
- Access can be made to larger stadium masts via a maintenance cage.



## MAST CONSTRUCTION

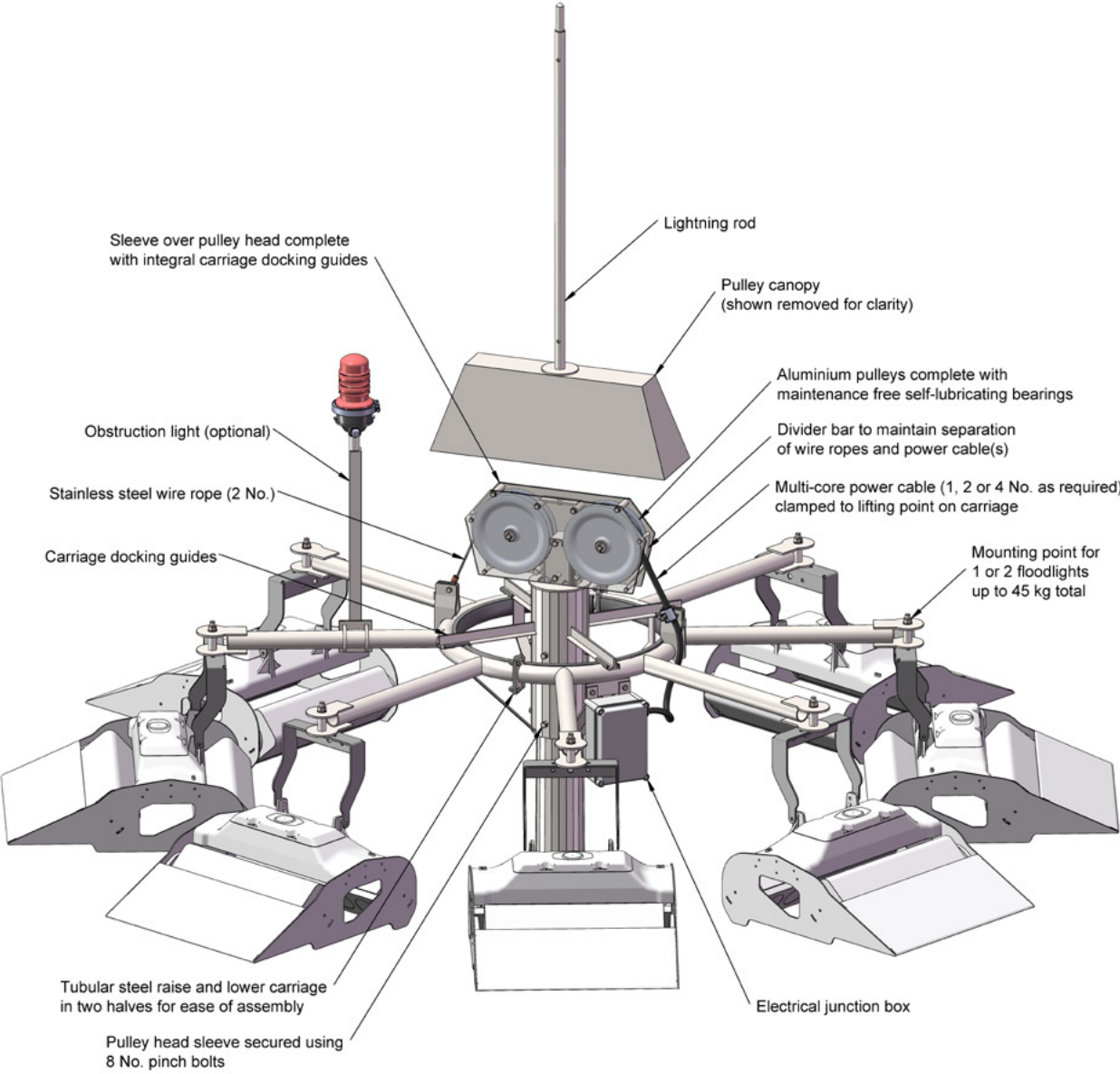
- The mast is a free-standing continuously tapered structure which has the smallest footprint possible fit for purpose.
- Constructed from steel plates cut and folded to form 20-sided sections for on-site assembly.
- No site welding or bolted sections are required.
- Fully reinforced door is located at the base of the mast for access to equipment. The door is weather-proof, vandal resistant and has two heavy duty locks. The mast is connected to the base flange with a pass-through type multi pass fillet weld on the top side and a sealing weld on the underside.
- Supplementary gussets are provided between bolt holes.
- An earth terminal (12mm diameter stainless steel bolt) is attached to the mast door reinforcement.



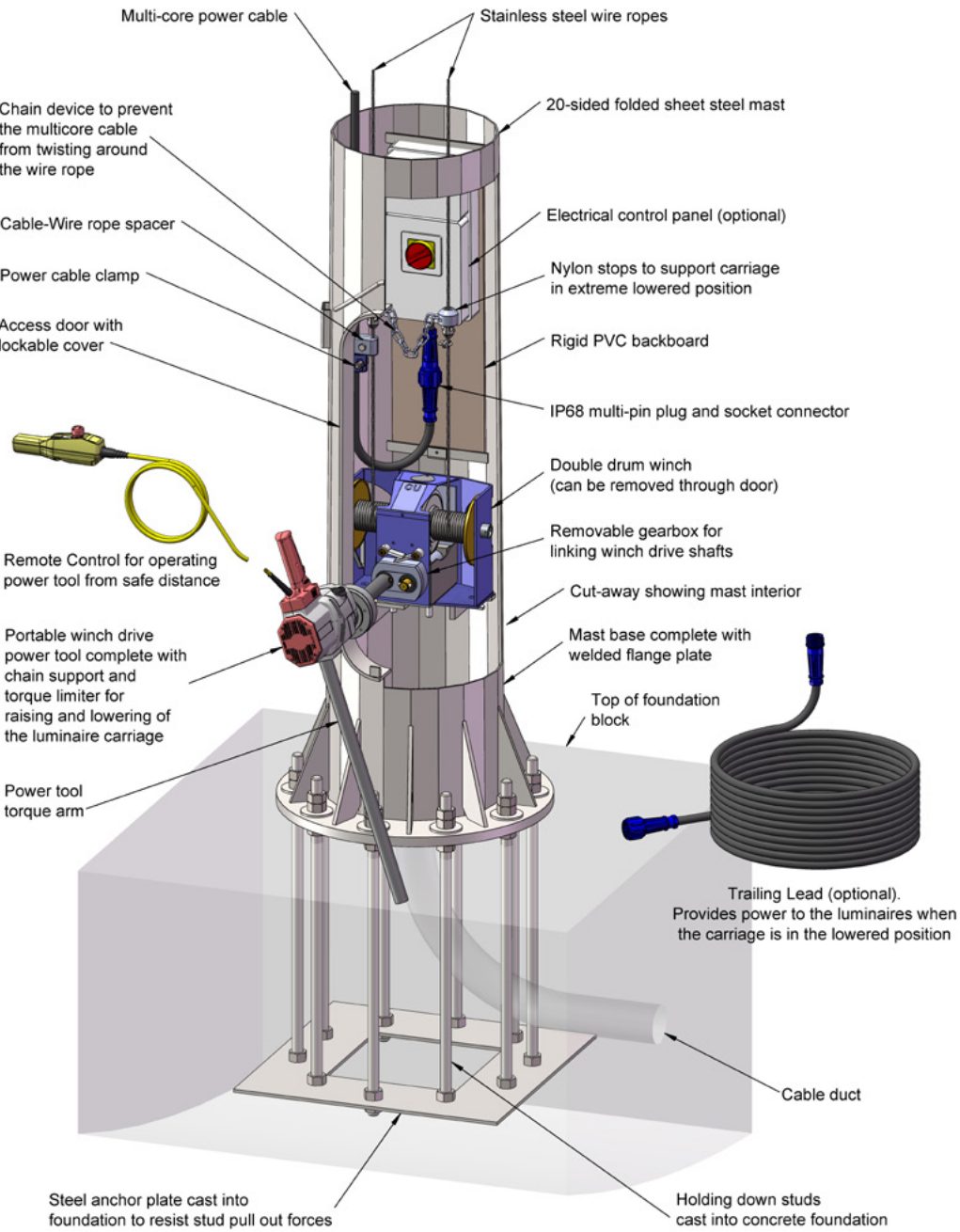
# PULLEY HEAD ASSEMBLY

The pulley head is made as a sleeve-over section which slips over the top of the mast shaft, protected by a weatherproof canopy.

Fitted with lantern carriage guides and stops to ensure the correct docking of the lantern carriage.



High Mast Pulley Head Arrangement



High Mast Base Arrangement  
(Double drum winch system shown)

## WINCH SYSTEM

The winch is in the base of the mast and comes with the option of double drum and triple drum winches. The winches are completely self-sustained without the need for any brakes, clutches, or other mechanical devices.

## WINCH DRIVING TOOLS

- Multi-speed reversible power tool.
- Supplied with torque-limiting device.
- Remote-control switch allows the luminaire carriage to be raised and lowered from three metres away from the mast.
- Kit provided to support the power tool accurately and securely during operation. Manual winding handle with torque limiting device provided for manual operation of the winch.

## HIGH MASTS WITH CCTV, WI-FI AND RADIO ANTENNAS

The need for CCTV, Wi-Fi and Radio Antennas is becoming an essential requirement for ports, airports and area lighting applications, as the safety of all users is paramount.

Our High Masts are designed to accommodate these applications and the required deflection limits enabling operators to achieve a stable image for ease of issue identification.

These additional applications can be mounted at the required heights, without interruption to the raising and lowering of lantern carriages, enabling carriages to pass without obstruction and allowing maintenance to be carried out at ground level.





# AIRPORTS

## PROJECTS & CLIENTS

- London Heathrow, UK - LHR
- London Stansted, UK - STN
- Manchester Airport, UK - MAN
- Beijing Airport, China - PEK
- Changi Airport, Singapore - SIN
- Kai Tak Airport, Hong Kong - HKG
- Dublin Airport, Ireland - DUB
- Constanta Airport, Romania - CND
- Schiphol Airport, The Netherlands - AMS
- Al Maktoum Int. Airport, Dubai - DWC
- Abu Dhabi Int. Airport, ABU DHABI - AUH
- Dubai Int. Airport, Dubai - DXB
- Baghdad Int. Airport, Iraq - BGW
- Addu Int. Airport, The Maldives - GAN
- Queen Beatrix Int. Airport, Aruba - AUA
- Sofia Airport, Bulgaria - SOF



# PORTS

## PROJECTS & CLIENTS

- ABP Southampton Port, UK
- DP World London Gateway Port, UK
- Doha Port, Qatar
- APMT Izmir Port, Turkey
- APMT Poti Port Georgia
- ICTSI OPC-Puerto Cortez, Honduras
- Exolgan Port, Argentina
- DP World Puerto Lirquen, Chile
- SVTI San Vicente Port, Chile
- ICTSI Manila Port, Philippines
- Hutchisons Sydney Botany Bay, Australia
- PSA Port of Singapore, Singapore
- APMT Tanger Med Port, Morocco
- APMT Apapa Port, Nigeria
- Aqaba Port, Jordan
- Tema Port, Ghana
- MICTSI Toamasina Port, Madagascar
- APMT Port of Nouakchott, Mauritania





# OIL & GAS

## PROJECTS & CLIENTS

- LNG Angola - Bechtel
- Curtis Island LNG, Queensland, Australia
- Methanex Geismar 3, Louisiana, USA
- In Salah, Algeria
- In Amenas
- IBP Rumaila, Iraq
- Lybia Oil, Lybia
- NWR, Canada
- Lyondell Basel PO/TBA Chemical Plant, Channelview Texas, USA
- Plaquemines LNG, Louisiana, USA
- Escravos, Nigeria
- Odoptu, Sakhalin Island, Russia



# HIGHWAYS

## PROJECTS & CLIENTS

- M50 Highway, Ireland
- M1, M3, M4 Highways, Dublin, Ireland
- Westgate Freeway, Melbourne, Australia
- Porto City Inter Ringroad, Portugal
- A1/A2/A16 Highway Toll Plazas, Portugal
- M62 Liverpool-Knowsley Highway, UK
- Derby City Centre, UK
- Newcastle Central Modtorway, UK
- Coventry Inner & Outer Ringroad, UK
- Doncaster City Centre, UK
- A723 Highway, Hamilton, Scotland, UK
- Hertfordshire Highways, UK









# About CU Phosco

Established in 1923, our century long legacy of technical expertise and operational integrity has earned the trust and business of customers worldwide across sectors including road, telecoms, airports, ports, and sports.

Our lighting products are rigorously tested to be used in all environments and are built with circularity in mind. Our lighting columns and masts range from 3 metres to 60 metres in height and can be seen on roads, motorways, at airports and ports, shopping centres, residential areas, and sports stadiums throughout the world.

Our products are designed and manufactured in the UK at our dedicated high-mast facility, and made from 100% recyclable or reusable materials.

