



IN-TENSION RAISE & LOWER HIGH MAST SYSTEM

RETRO-FIT SUPPLY & INSTALLATION



CONTACT US

☎ +44 (0) 1920 860600
✉ hello@cuphosco.com
🌐 cuphosco.com

CU Phosco

© 2025 CU Phosco





THE CU PHOSCO IN-TENSION RAISE & LOWER SYSTEM FOR YOUR EXISTING HIGH MASTS

For more than 60 years, CU Phosco have been manufacturing and installing the In-Tension Raise & Lower High Mast System in ports, airports and large areas across the globe.

During this time, we have also supported our customers with a retrofit of the In-Tension Raise & Lower System into their existing structures, where their existing systems have experienced failures.

From structural assessment, manufacture and installation, or working with your teams to ensure that you have the safest solution for your High Mast lighting requirements, CU Phosco partners with your business to ensure that your operations can continue.

WHAT IS THE CU PHOSCO IN-TENSION RAISE & LOWER SYSTEM?

CU Phosco In-Tension Raise & Lower High Mast System allows for simple installation and maintenance of luminaires, without the need for work at elevated height.

The In-Tension system does not use latches as these can become stuck over time due to dirt and debris thus preventing the normal lowering operation.

FEATURES OF IN-TENSION RAISE & LOWER SYSTEM

- Work completed at ground level for easy Floodlight installation and safe, hassle-free maintenance
- Smooth, single action operation without latches and areas for the carriage to become stuck
- Ideal for use in confined spaces, so there's no need for base hinge clearance area
- Wire ropes kept in-tension to maintain the rope health and durability
- Factory prepared wire ropes and power cable rigging sets
- Light and portable power tool includes for use with winches



WHAT IS AN IN-TENSION RAISE & LOWER HIGH MAST RETROFIT?

Retrofit projects can be a simple and cost-effective solution. If your current High Mast system has experienced failure, with lantern carriages stuck, or your current system has become unreliable, the CU Phosco In-Tension Raise & Lower High Mast System can be installed into your current structures to provide a reliable, safe and simple solution. It also provides:

- A more efficient and cost-effective alternative to full replacement of your existing High Masts
- Improve the efficiency of your current High Masts
- Includes a maintenance health check of your High Mast

HOW IS AN IN-TENSION RAISE & LOWER HIGH MAST RETROFIT COMPLETED?

Our experienced team of structural engineers will work with you to determine your requirements and ensuring that the In-Tension Raise & Lower System, is the right solution for you.

Following a complete a full Health Check of your current structures, our team will collaborate with your on-site teams or contractors to fully review all requirements, from dimensions to existing structures in place, to ensure that you receive first-class support for your High Mast requirements.

EASTERN HARBOUR CROSSING, HONG KONG

RETROFIT OF IN-TENSION RAISE & LOWER HIGH MAST SYSTEM

In collaboration with our partners, LTB Lighting Tech Ltd, the CU Phosco team supported the replacement of the existing Petitjean High Mast raise & lower system to extend the life as well as enhance productivity. The existing system was over 38 years old and many of the parts were in functional decline or not working.

KEY OBJECTIVES:

- To extend the life of the High Masts
- To reduce forward maintenance costs
- The reduction of future operation costs
- To ensure all mechanisms are in working order

SOLUTIONS

Following on from an initial on-site inspection, the team consulted CU Phosco's Structural Engineers, providing all information relating to the existing structures.

CU Phosco identified and supplied a full In-Tension Raise & Lower System, including: 30/7 double drum winch; Raise & Lower head frame, power cable and accessories; wire ropes; and lantern carriage.

Working with LTB, who consulted the on-site contract team for installation, CU Phosco were able to provide full support for the duration of the project.

RESULTS & BENEFITS

Not only was a new lease of life provided to the High Mast, but it was also structurally sound, and the Raise & Lower System enabled safe maintenance for future operations, reducing cost and ensuring maximum efficiency.





HAMAD INTERNATIONAL AIRPORT, QATAR

BACKGROUND

CU Phosco was approached by Hamad International Airport to review their existing latching Raise and Lower High Mast System. The airport was facing operational challenges due to system failures caused by debris becoming embedded in the latching mechanism. This issue resulted in the headframe getting stuck, leading to significant delays of up to two days before the headframe could be returned to the base of the High Mast for maintenance.

SOLUTION

The team at Hamad International Airport was introduced to CU Phosco's In-Tension Raise & Lower High Mast System. Upon witnessing a live demonstration, the airport authorities observed the system's efficiency in lowering the lantern carriage to the base within just 20 minutes. This showcased a significant improvement over their existing system.

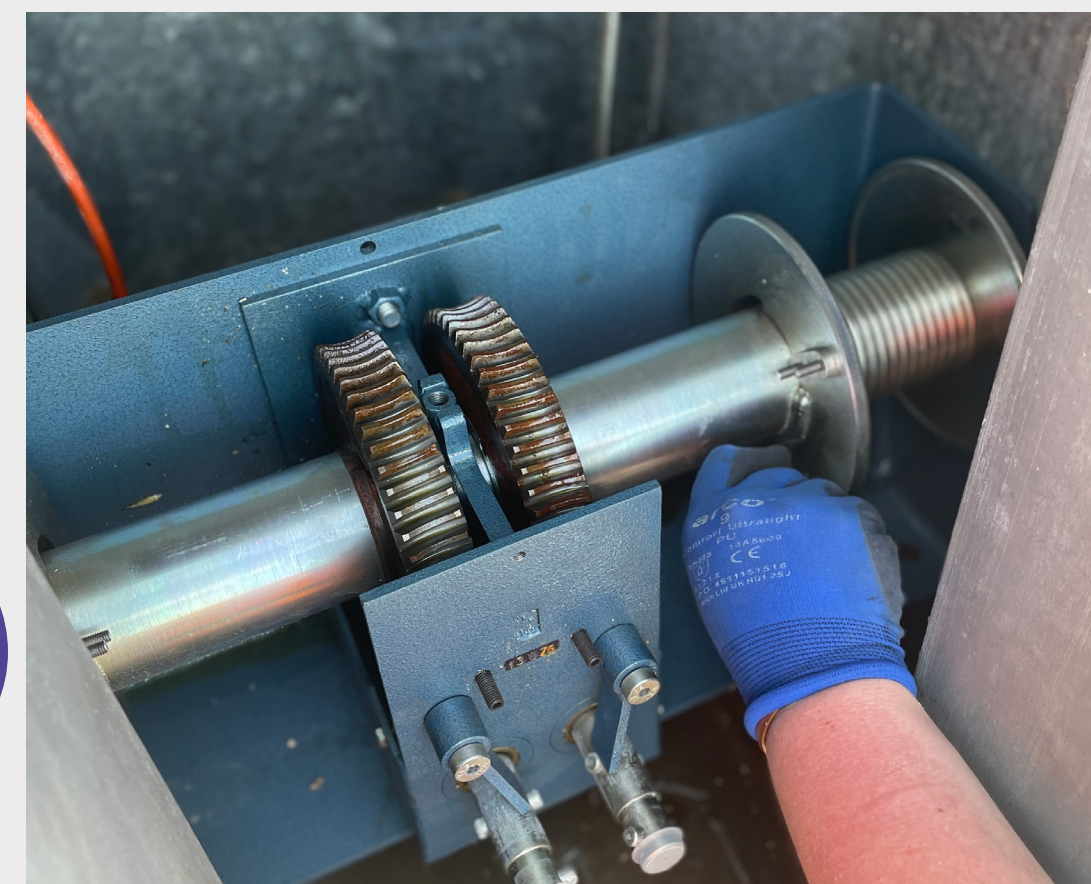
RETROFIT PILOT SCHEME

Following a comprehensive structural survey, CU Phosco successfully installed its In-Tension Raise & Lower High Mast System as a retrofit solution to the existing high mast infrastructure at the airport.

The successful pilot implementation has enabled Hamad International Airport to conduct maintenance operations safely at ground level. This not only improves safety for maintenance operatives but also reduces operational disruptions by eliminating the need to close large sections of the apron during maintenance activities.

Following the success of a pilot scheme, Hamad International Airport has committed to a large-scale retrofit program to upgrade its lighting infrastructure. CU Phosco has been selected to implement the transition to the In-Tension Raise and Lower High Mast System across the entire airport.

RESULTS & BENEFITS





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.

