Denmark’s largest commercial port, ARR’s six terminals serve container, multi, bulk, tanker, ferry, and cruise shipping. And it handles everything from coal to windmills – plus over 2,000,000 ferry passengers a year. AAR is responsible for a substantial part of Denmark’s food and non-food products imported to and exported from the country. This has led to it being designated ‘Port of European Importance’ status.

Based in the very north Europe, the port regularly operates in sub-zero temperatures, and with high levels of humidity and salinity – which can cause issues when designing and installing portside equipment.

The challenge

AAR needed to:

• Introduce new high-mast LED lighting as part of a new quay extension.
• Have the new lighting integrate with the existing high power sodium controls.
• Find solution that could also cope with the significant corrosion levels already effecting existing portside equipment.

This meant the bespoke lighting solution needed had to:

• Have an additional cable input to ‘daisy-chain’ the new lighting with the existing control system.
• And be made of specialist steel.
Our solution

The first step was to provide AAR with a detailed design recommendation – covering mast placement and the suggested lighting needed to meet the port’s challenges. Working closely with AAR’s engineers we agreed on a route to deliver the solution needed. This then went through an evaluation stage before a period of in-situ testing.

The lighting we proposed was our Titan 720 as it:

- Is built from corrosion resistant 316 stainless steel.
- Was the best choice to deliver the high power, low glare, and high performance needed.
- Allowed us to cut the number of masts required by two, thanks to its highly asymmetric proprietary optics. This helped reduce Capex costs greatly.
- Delivered crisp white light and high colour rendering that significantly improved the visibility of the yard and quay.

This initial project was delivered at a lower cost and in a shorter timeframe than AAR thought possible. The client was so impressed with our products and way of working they’ve awarded us other projects – without putting them to tender.

Product used for the Port of Aarhus: Titan Series

- A highly asymmetric floodlight providing an excellent solution for low glare applications.
- Our propriety optics deliver maximum light levels on designated areas.
- It’s designed for maximum heat management.
- And it’s manufactured to survive the harshest of environments, whilst delivering high performance and long life.
- Which in total makes it the go-to product for many of our aviation and maritime clients for years.

At a glance

Sector: Maritime
Customer: AAR Port of Aarhus
Location: Denmark
Type of Harbor: Deep-water seaport
Annual Cargo Tonnage: 8.4 million
Project date: 2017/19/20

LED floodlights installed: 230
Type: Titan Series – 720
Energy Savings: 35%
Lux average values: 50 Lux
Payback: 2 years

Find out more: midstreamlighting.com or call +44 (0) 207 584 8310