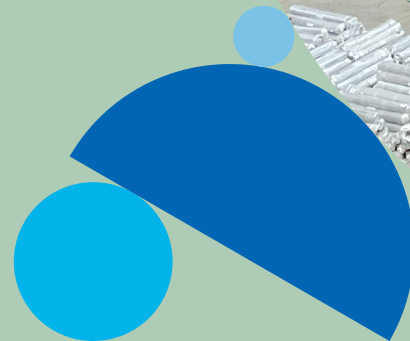


Case Study

# Fixed Fire Protection:- Maersk – 602 Mammoth, Doncaster



# Effective **Fixed Fire Protection** measures are crucial to **saving lives, protecting property** and increasing **organisational resilience**

Fire protection systems in buildings have proven over many years to be key components to mitigating loss. However, for protection systems to be effective, they must be available, reliable and fit for purpose.

Fires grow very rapidly with no fire protection in place and if components of the sprinkler system malfunction, a fire can grow unchecked. The quick operation of the fire protection system is critical to controlling a fire during its early (incipient) stages of growth – therefore, ensuring the system is designed and installed correctly is the key foundation to success.

Zurich Resilience Solutions' dedicated Fixed Fire Protection Team are experienced, industry experts with knowledge across all aspects of fixed fire protection.

We support customers through the lifecycle of a project from specification and design, to installation and testing. This helps ensure any installed system is fit for purpose.

We are actively involved in UK, European and global standards organisations including research bodies to ensure that up-to-date knowledge and experience is used when helping our customers.

We offer a range of solutions to support our customers with the installation of sprinkler systems, gas suppression and localised fire protection, including foam, water mist and wet chemical extinguishing systems.

A recent example is explored within this case study.

*“The project had some design challenges and non-conformities to overcome. The positive communication between Alpine and Zurich resolved these challenges with ease. This is undoubtedly a contributing factor to the successful delivery of the project.*”

*Another worthy note was the drawing approval stage. With a challenging delivery programme to contend with, Zurich was more than accommodating to give guidance with detailed reports on drawings issued for approval. Alpine's ability to achieve installation start dates was made possible due to Zurich's performance at a crucial time in the development process.”*

**Alpine Fire Engineers  
(Fire Suppression Company)**

*“From our point of view, this assessment and the whole collaboration with ZRS is a result of an agile value based consulting approach.*”

*The industry challenge of following local rules and regulations on fire safety, and at the same time insuring your property and your operation through the global insurance market, is minimized when you use the right type of sprinkler consultancy, in the early stages of a building project.*

*We have developed this setup with ZRS to get an outside-in view on our projects so we can be in compliance with international fire safety standards that goes hand in hand with the global insurance best practice.*

*This project showcases the unique value of interacting with the right global experts in the early stages of a building process, and it also stand out as an example of how to engage with insurance and risk engineers, to get a safer and more resilient operation.”*

**Peter Gede  
(Loss Prevention Manager, Maersk)**





# Maersk, 602 Mammoth, Doncaster:

## Background

Maersk are increasing the capacity of their global logistics solutions and, as part of their ongoing property risk management support, reached out to Zurich Resilience Solutions (ZRS) for support with the specification, design, installation and commissioning of a fixed fire protection (sprinkler) system to one of their new locations, a warehouse facility in the North of England.

The ZRS Fire Protection team worked with the local Maersk construction project team to provide a bespoke service for the; review of proposed sprinkler specifications using recognised property protection standards (LPC Rules incorporating BSEN12845 & NFPA 13), undertaking detailed design reviews of all sprinkler installation drawings including hydraulic calculation submittals, culminating with site inspections and water supply testing of the sprinkler system to verify that the fixed fire protection is acceptable for the risk, and for the customer.

## Specification Review

ZRS were engaged to review and discuss the proposed sprinkler system, which included review of the sprinkler contractor's specification for the project. During this stage ZRS were able to identify proposed deviations to the system, consult with the sprinkler design team and collaboratively engineer alternative solutions where appropriate. Early collaboration enabled designs to proceed with confidence, knowing that the solutions were appropriate for the risk and to the customer.

## Design Reviews

The phased project programme required sprinkler designs to be prioritised to maintain project delivery. During this review phase, ZRS were able to provide specific consultation around the finite design details to ensure that the overall designs met both compliance with the sprinkler standards as well as insurance property protection acceptance.

## Interim Site Inspections

To ensure the systems provided to Maersk were effective, a ZRS Fire Protection Engineer undertook an on-site inspection of the installed sprinkler system. During this visit our ZRS engineer was able to validate the installed protection as well as identify areas of improvement. These findings were openly discussed with the on-site representatives and were formally captured within a fire protection report. Whilst on site, our ZRS engineer was also able to provide guidance to the Operations Team to ensure that storage arrangements remained aligned with the sprinkler protection being provided.

## Water Supply Witness Testing

Flow testing of the newly installed automatic sprinkler water supply was witnessed to assess its adequacy and successfully validate its performance. This final site inspection visit also enabled ZRS to validate the sprinkler system for property protection purposes, and successfully concluded the support provided to Maersk, verifying that the fire protection installed is available, reliable and fit for purpose.

## Customer outcomes

As a result of the collaboration, the following benefits were realised:



Successful project delivery despite challenging aspects to overcome enabled by collaborative working across key stakeholders



A sprinkler system designed and installed to Zurich recognised property protection standards improving the insurability of the site



An asset with strong fire protection capabilities reducing the risk of operational disruption and financial loss





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