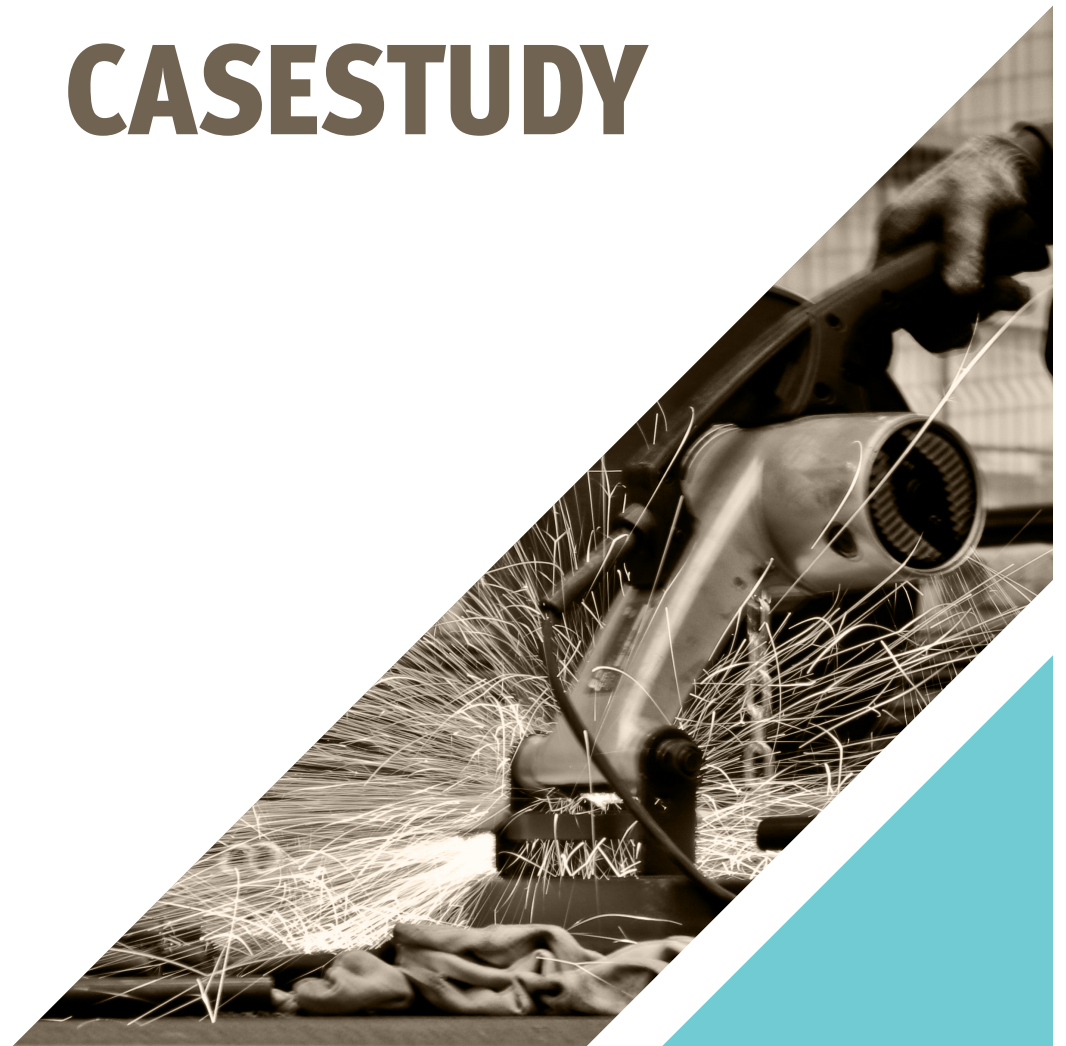# TECHNICAL METALS

**HOCHIKI**

## CASESTUDY

## TECHNICAL METALS, A HIGH-RISK METALS MANUFACTURING ENVIRONMENT, INSTALLS HOCHIKI PRODUCTS TO IMPROVE FIRE SAFETY

**ESTABLISHED IN 1984, AND WITH SEVERAL AWARDS INCLUDING THE QUEEN'S AWARD FOR ENTERPRISE, TECHNICAL METALS, BASED IN NORTHERN IRELAND, OFFERS ANODISING AND SURFACE PREPARATION PROCESSES TO A WIDE RANGE OF CUSTOMERS ACROSS THE AEROSPACE INDUSTRY, DEFENCE, TELECOMMUNICATIONS, ELECTRONICS, COMPUTER, PHARMACEUTICAL, STREET FURNITURE, ARCHITECTURAL, WIND TURBINE AND GENERAL ENGINEERING SECTORS.**

Specialised Fire and Security were awarded the contract to update Technical Metals existing fire detection system which required completely modernising. Established in 2013 by two experienced fire and security professionals with a combined 65 years industry experience, the company has grown to be one of the best known and respected independent specialist fire and security providers in Northern Ireland and have quickly earned a reputation for delivering tailored solutions for clients.

Situated on an industrial park, Technical Metals consists of a group of buildings including offices, goods in, packaging and high-risk manufacturing environments with acid baths, heat and smoke and corrosive atmospheres. This presented a unique challenge for the team at Specialised Fire and Security, led by Tom Skates, who chose Hochiki Europe products to help keep this hazardous facility safe.

Tom explains "*Originally, we were presented with a plan that included multisensors situated at high-level points in the adonising department block. However, during a site inspection we realised this would be an issue. Some of the light fixings were corroding due to the chemical fumes rising from adonising equipment below. We recommended that Hochiki flame detectors were fitted at a low level, pointing to the area above. This meant the area was secured without risk of deterioration*".

Hochiki multi-sensors were then fitted throughout the rest of the building allowing for heat and smoke to be detected night or day. "*This kind of manufacturing plant is naturally prone to dust and smoke, which can cause false alarms. A key requirement to this project was to reduce and even eliminate false alarms. Hochiki was chosen because they offer the most reliable products to help protect against false alarms. Multi-sensors are particularly good at this and allow for a flexible approach to fire detection. We have set up an ongoing maintenance programme with Technical Metals which means, should they need to change parts of the building, the Hochiki multi-sensors devices we have fitted can be easily switched to the most applicable detection method required. This is a future proofed project.*"

Products with integrated short-circuit isolators (SCIs) were also fitted. On a healthy addressable fire system, the voltage from the fire control panel is driven one way around the loop, both powering devices and carrying data. But if a fire loop cable is accidentally damaged by tools, equipment or chemicals for example, particularly if not mechanically protected by conduit, and the result of that damage is that the positive and negative conductors within the cable make contact with each other, that vital voltage level drops. This is a short-circuit and at this point this entire loop is instantly out of action, which of course puts the whole building and its occupants at risk.

Hochiki's SCI-enabled devices recognise this voltage drop and when they activate, they divert the loop voltage back along one of the conductors, maintaining the flow of power and data for the rest of the loop.

At the same time, because it is programmed to recognise when it's no longer receiving a return loop drive voltage, the fire control panel will automatically switch to driving voltage from both ends of the loop, using both conductors. In high-risk manufacturing environments such as Technical Metals, this innovative technology makes all the difference.

*"I've worked with Hochiki products for nearly all my career, and in fact when I moved to Specialised Fire and Security four years ago, it was a big tick for me that they were already recommending Hochiki kit to their customers. The reliability is second to none, the devices are innovative and easy to install, plus they are flexible to a range of applications"*

The installation project at Technical Metals is a fantastic example of how Hochiki Europe's range of products can be used in high-risk environments to help reduce the risk fire poses to people and assets.