

CASE STUDY



MASTIC DUCT SEALING

MAY 2025

Following an in-depth duct seal survey carried out across multiple plant rooms and critical areas of a food manufacturing facility, various voids and improperly sealed penetrations were identified.

These posed a potential risk to fire safety and water ingress, which could compromise the hygiene and operational continuity of the facility.

We were subsequently commissioned to carry out comprehensive remedial sealing works, designed to meet fireproofing and watertight standards.



SCOPE OF WORKS

The project involved sealing approximately 60+ cable duct penetrations across various high-risk areas within the site.

These included voids above production corridors, refrigerated systems, and utility plant rooms. The goal was to establish robust fire-resistant and watertight seals around all cable duct entries and existing service penetrations.

- Installed cable duct seals in ceiling voids above key processing zones, including creating split ducts to properly seat in shallow plasterboard surfaces and achieving necessary depth for compliant sealing.
- Removed non-compliant expanding foam from previous installations in plant areas and replaced it with certified cable duct systems. Existing plasterboard was repaired and prepared to meet fire safety standards before sealing works commenced.
- Evaluated and remediated sealing issues around access points in voids, including replacing a damaged hatch with a fire-rated alternative and re-establishing integrity of a fabric fire barrier where degraded.
- In low-voltage electrical plant areas, works included isolating and separating grouped cables, installing compliant duct seals, and ensuring that the surrounding substrate was prepared to enable effective and long-term seal adhesion.

OUTCOME

All duct penetrations were sealed using a certified mastic sealing system, providing gas and watertight integrity as well as resistance to fire spread.

Where existing materials or structural components were unsuitable, we modified or replaced them to accommodate the sealing solution.

In every case, the purpose was to create long-term, resilient seals that support both hygiene and regulatory compliance for this premises.

The remedial works were completed with minimal disruption to production. All penetrations are now fully sealed, compliant with relevant fire and hygiene standards, and contribute to the facility's operational safety and contamination control.

