

AMCO·GIFFEN

Case Study



Leeds Bradford Airport Winter Works

Location	Leeds Bradford Airport
Client	Leeds Bradford Airport
Project Value	£438,000
Project Timeline	March 2022

Using our in-house capability to undertake a range of specialist concrete repairs, AmcoGiffen completed vital repair work to the runway.

This included 15no bay replacements and small pavement repairs using Maxicrete – a unique and highly flexible material that is specially designed to deliver very fast, but low-cost and effective, results.

Project Overview

With the condition of runway giving cause for concern, and the need to proactively repair defects to prevent any operational disruption, Leeds Bradford Airport approached AmcoGiffen for assistance. In line with our strategy to grow our presence within this high-profile sector, we were keen to carry out these repairs using PQX concrete and the highly flexible, impervious and load-bearing Maxicrete product.

All stakeholders were informed by LBA that these urgent repairs would be undertaken within specific working windows (night closures). We needed to work efficiently and flexibly, using our specialist, accurate cutting equipment to best effect.



Project Challenges

Our main challenge was to replace the defective concrete bays in small working window, while allowing for the weather-dependent nature of this type of work and minimising any disruption to the Airport. In this respect, early planning was key: some repairs had several secondary cables running through the joints around the bay.

All AmcoGiffen staff applied for full ID passes and certificates also had to be obtained, enabling staff – and vehicles – to gain airside access; and we also took part in vital, end-of-shift FOD (foreign object debris) inspections, as this represents one of the most serious, but avoidable, hazards to aircraft on the ground.



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Methodology

For the Maxicrete repairs, they were saw-cut and broken out using Hilti breakers. We then cleaned the repairs with a road sweeper, before jet-washing them down. After drying (using a gas torch), primer was applied before Maxicrete 40 grade was added and left to cool for 30 minutes. A second layer of (20 grade) Maxicrete was then added, with bauxite stone applied on top to complete the repair.

We also had to complete fifteen bay replacements during night time possessions. This involved removing the concrete bays, by saw cutting the perimeter and coring release cores in the internal corners. Then proceeded to break the concrete and remove using an excavator. Once all the defective concrete had been removed, the sub-base was inspected and, if necessary, replaced. The new PQX concrete was then poured using volumetric wagons until flush with the existing concrete bays.

Project Benefits

All planned works were completed, defect-free, within the required timeframe.

Our first project for LBA on a three-year framework. We are now working with the and their designers and advising on logistics and best value solutions for each planned section of future works.

“Always providing an excellent service. Well done to the AmcoGiffen team.”

GAVIN THOMPSON
ENGINEERING MANAGER, LBA