

# Airport Maintenance Facility, UK

## Fibrelite Custom-Engineers Heavy-Duty GRP Trench Covers for Precast Concrete Troughs at Airport Maintenance Facility



*Fibrelite provided a bespoke composite trench covering arrangement for this airport maintenance facility*

### Project Overview

A third-party engineering and construction company contacted Fibrelite to provide a bespoke GRP composite trench covering arrangement to fit precast concrete service trenches at a UK airport maintenance facility. The concrete troughs had already been sourced, and sizing and specification finalised, making a custom Fibrelite covering solution an ideal solution.



*Cover dimensions had to be custom manufactured to fit existing trough dimensions*



*A E600 'Super Heavy Duty' load rating was essential due to the frequent high wheel loads*

### Problem

The fact that the concrete troughs had already been acquired prior to Fibrelite's involvement in the project presented a number of design challenges, as well as those related to the nature of the application.

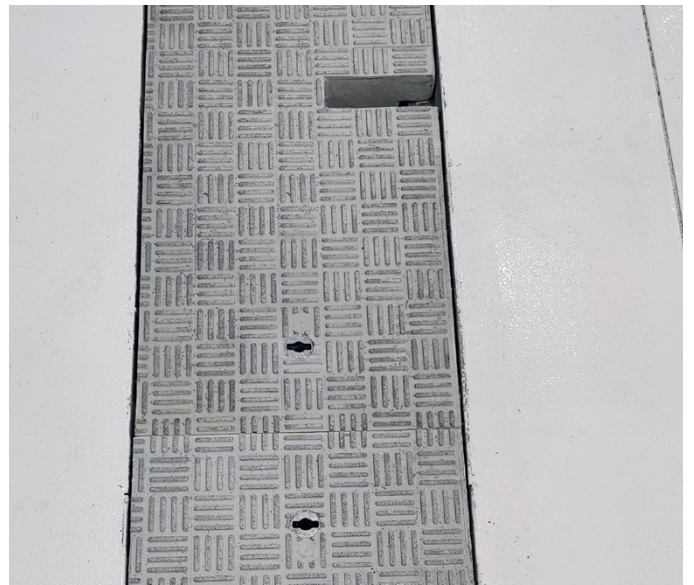
Key design challenges:

- Custom cover dimensions to fit existing troughs.
- E600 'Super Heavy Duty' load rating essential due to frequent high wheel loads.
- Every third cover required 140x50mm apertures for access to compressed air lines.
- Non-standard colour pigment requested.

In addition to the above, a strict construction programme was mandated.



*Covers were stepped from 40 to 65mm deep to meet E600 load rating*



*Every third cover modified with 140x50mm 'mouse hole' aperture to enable easy access to compressed air lines*



All Fibrelite trench covers can be safely and quickly removed by two people using the FL7 lifting handles (image used for illustration purposes and shows a different installation)

## Solution

Fibrelite proposed a custom, retrofit GRP composite trench cover design which would fit directly into existing troughs. This design was approved by the client shortly after submission.

### Key features:

- Custom covers, dimensionally consistent to all details provided by the client, allowing them to be fitted immediately into existing trough rebates upon delivery.
- Covers stepped from 40 to 65mm deep in order to accommodate E600 load rating.
- Every third cover modified with 140x50mm 'mouse hole' aperture to enable easy access to compressed air lines.
- Covers manufactured using custom light grey colour pigment.

Covers were manufactured and delivered before the project deadline.

## Results

Fibrelite covers enable easy safe manual access to trenches, eliminating the need for specialist personnel or machinery during maintenance or operation (and resultant costs).

### Key benefits of Fibrelite covers:

- Best strength to weight ratio available in the market today.
- Easy, safe access to trench services using the Fibrelite's ergonomically designed FL7 lifting handles.
- Fit-and-forget corrosion-free long-term solution.

### For more information on Fibrelite's product range please contact us:

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