

## Heathrow Airport

Aviation

A kitchen ductwork fire in December 1997 at Heathrow thankfully caused no loss of life or injury, but led BAA to undertake a technical review. From this review, fire rated ductwork by Hargreaves is now being used for kitchen extract ventilation. Close collaboration between all contractors is ensuring fast refit so the outlets can resume trading quickly.

City Centre Restaurants outlets, Cafe Uno, Garfunkel's and Metro, are the first to benefit from the safety upgrade. All uninsulated single skin kitchen extract ductwork is being removed and replaced by the fully tested Hargreaves HFD/KE 100 kitchen extract fire rated ducts. The HFD/KE is just one of a full range of special ductwork constructions developed to meet different fire

engineering needs and designed for speed and ease of installation.

The logistics of the refit are remarkable. The airport handles an average of 160,000 passengers per

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day. Retail concessions need to minimise out-of-service time to safeguard peak revenues. The Cafe Uno refit was therefore set for a seven week slot, so that the restaurant could

CASE STUDY



### PROJECT DETAILS

**Project Name:** Heathrow Airport

**Client:** BAA

**Contractor:** Crossley Associates

**Location:** London

**Value:** £300,000

**Date:** 2003

resume full service in early June.

The tight on-site programme was aided by use of HFD/KE ducts which can be installed in a single process. Factory fitted insulation in the double skin armoured duct is protected from site damage and contamination. This was an important factor for the specifying engineers Crossley Associates. They were concerned that alternative wrapped systems would have taken longer to install and may have been prone to damage and degradation.



Tested to meet the fire requirements of BS476 Part 24 1987 the HFD ducts maintain stability and integrity for four hours and insulation needs for one hour. The ductwork also meets the special criteria for fire extract systems that at least 80 percent of cross sectional area is kept during an in-duct

fire. Extract efficiency is therefore not impaired. The laboratory tests include not just the ductwork but the specially developed support systems that prevent collapse at high temperature.

Good housekeeping is vital. The Hargreaves system has ports at 1.5 metre centres for inspection and cleaning so that grease build-up can be monitored and prevented. This has been the cause of previous fires. A total loss fire at the Royal Albion Hotel in Brighton in December 1998 was attributed in press reports to grease build up and breach of the ductwork walls.

In keeping with its status as the world's premier airport operator BAA is taking its responsibility for safety very seriously. Heathrow's 60 million annual passengers and 57,000 staff will now operate in an even safer and secure environment."

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