

**ALCOA**  
KITTS GREEN, BIRMINGHAM

**PROJECT:**

*Alcoa Aluminium Smelting Shed*

**LOCATION:**

*Kitts Green, Birmingham*

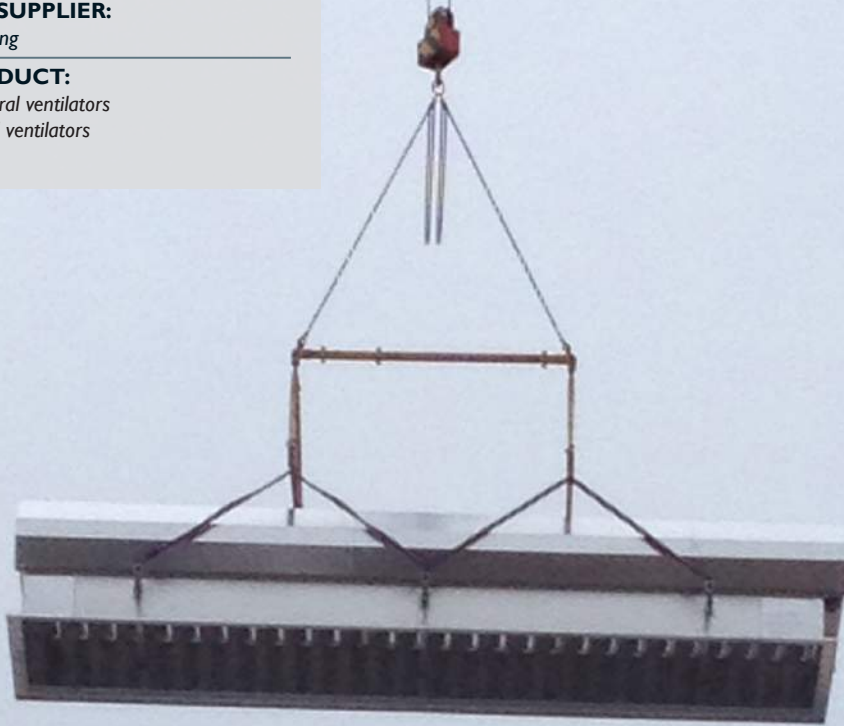
**ROOFING SUPPLIER:**

*Hawkins Roofing*

**COLT PRODUCT:**

*Labyrinth natural ventilators*

*Seefire natural ventilators*



## PRODUCT IN ACTION | CASE HISTORY

The roof of Alcoa's aluminium smelting shed was damaged beyond repair after an overheated gantry crane caught fire. As part of the roof's replacement, Colt surveyed the shed and designed a ventilation system that would cope with the high heat loads associated with smelting and ensured that desirable temperatures were achieved at the gantry cranes from now on. As part of the design process, temperature data loggers were used to monitor conditions, allowing Colt to understand the full extent of the overheating problem and design an effective system.

The system comprises of Colt Labyrinth and Seefire natural ventilators. Natural ventilators are low energy products and so reduce running costs dramatically when compared with mechanical ventilators. They also require very little maintenance.

The Labyrinth ventilators were pre-fabricated at our factory in Havant, making the installation quicker and allowing Colt to have full control over the final quality of the installed product.



Our natural ventilation schemes consist of automatically opening ventilators at high and low level, and can range from a simple open/close switch to a fully integrated energy management system with carbon dioxide and temperature measuring, weather sensors and interfaces with building management systems.

### COLT VENTILATION SOLUTIONS TAILORED TO EVERY TYPE OF BUILDING

We can design a tailored natural ventilation system for all types of buildings – from schools to offices, from power generation plants to shopping centres. By bringing its uniquely broad expertise across different specialties, Colt is able to design the system that best meets the requirements of your project, including integrated solutions for day-to-day ventilation and smoke control, or hybrid natural and mechanical ventilation systems. Colt's support goes beyond the design stages, through to the installation and, subsequently, to service and maintenance.



Aluminium ingot production



Pre-fabricated Labyrinth natural ventilators



Ventilators being installed on Alcoa's new roof