



Calorex DH600

A Calorex DH600 dehumidifier provides a reliable and efficient method of solving problems of excess moisture and condensation that can cause damage and deterioration.

Underground storage

An army of 13 Calorex dehumidifiers is playing an essential role in the re-development of a former WW2 storage facility near Bath.



The battle to reduce energy consumption was the top priority for nationwide business services company Restore, when it began re-engineering Monkton Farleigh Mine some 18 months ago.

Built during WW2, the mine comprises 60 acres of tunnels and storage districts. The facility is now used by Restore for the highly secure storage of documents and archives.



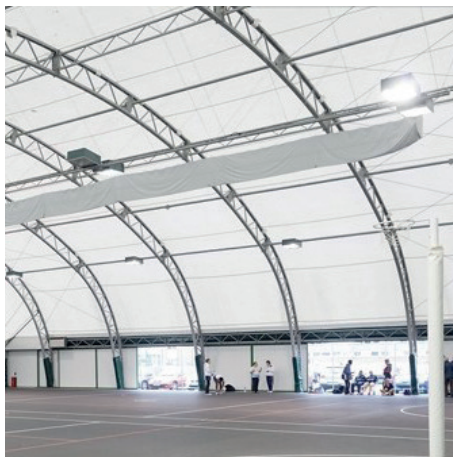
As part of the extensive project, Restore has invested in 13 Calorex DH600 dehumidifiers to control the environmental storage conditions deep within the mine.

John Ross, mine & facilities director at Restore explains: "The re-engineering project at the mine is being carried out in stages, with the aim of reducing overall power consumption and improving fire safety through the use of more modern and controllable plant."

"The Calorex units were selected for their energy efficiency credentials, but also because of their manoeuvrability. The Calorex units provided the ideal size and output for use in the facility which has tight space constraints."

Restore are also using DH600 units in more conventional storage warehouses at some of their 87 sites across the UK.

Leisure facilities



A pair of Calorex dehumidifier units is playing a vital role in preventing falls and slip ups due to condensation damage on court at the Dorcan Netball Centre in Swindon.

When it opened in 2007, the netball dome was designed to facilitate year-round play, with sliding panels that could be opened to keep players cool in the summer. However, in August last year Clean Air Solutions Ltd of Bath was called out to rectify problems caused by persistent condensation within the dome.

Chris Austen of Clean Air Solutions explains: "The use of the netball dome during the winter months was restricted due to condensation on the court, which



had led to accidents in the past. There was also concern that the condensation would corrode the steel structure over a period of time."

Due to the vast size of the dome, two Calorex DH600 high capacity dehumidifiers were specified, which are ideal for use within commercial premises.

Chris adds: "Calorex was our preferred supplier for this project, due to durability of the products and the cost comparison."



Stock image of crates

Food hygiene

A national logistics company that makes deliveries on behalf of a major supermarket, takes great pride in the hygienic handling of their food crates. After the crates have been used they are returned to the warehouse facility where they are steam cleaned and dried ready for reuse again as quickly as possible.

The volume of the warehouse is over 100,000 m³ and handles 10,500 crates per hour so speed is of the essence. The steam cleaning of such a large volume of crates created a fog that needed to be cleared and this was achieved by using six Calorex DH150 and four Calorex DH600 floor standing dehumidifiers. By using Calorex dehumidifiers to remove the moisture the resultant latent energy is directed back into the room to aid the drying of the crates, thus achieving energy efficiency and carbon saving as a further bonus. The project is so successful that further installations are planned at other depots nationwide.

Steel body panels

Stored body panels and other metallic components need protection from corrosion. Dehumidifiers provide the most effective and economic means of protection.

Calorex dehumidifiers are protecting motor car bodies from corrosion at Land Rover, Jaguar Cars and top Aston Martin specialists, RS Williams.

Land Rover

Storing steel body panels has always been a sensitive area for motor manufacturers: corrosion needs to be prevented, but

heating the storage area is both expensive and inefficient.

When Land Rover first opened its new painted metal body panel store at Solihull it wanted complete protection for the vehicle body parts before they went on to final assembly.

Unheated buildings, even when well ventilated, are susceptible to condensation during the winter. Land Rover ruled out the installation of a heat and vent system because of the high capital and running cost and chose instead dehumidification which would remove moisture from the air without the need to heat the building.

Following that decision, five Calorex DH600 dehumidifiers have now been installed at the store. Since the DH600 is a fully-packaged unit, retrofit installation was very straightforward with no ducting required.

The Land Rover units were fitted with electrical soft-start kits to reduce the current used during start-up and external pumps have also been fitted to pump the condensate water into a collection tank.

The equipment was supplied and installed by Hartle Building Mechanical Services of Solihull.

Jaguar Cars

Prestige car manufacturer, Jaguar Cars, is using Calorex units in its unpainted body panel store at Castle Bromwich. Previously the panels were sprayed with protective light oil coating prior to storage. A controlled storage environment eliminated the need to spray panels, saving money on materials and man hours.

The warehouse area is sealed and dehumidified using three DH600 high capacity dehumidifiers. The equipment was installed by Jaguar's mechanical service contractor CFS Industrial Services Ltd and commissioned by Calorex engineers.

DH600

The Calorex DH600 dehumidifiers are capable of removing 600 litres of moisture from the air a day. Drying by traditional heating involves continuously warming a stream of outside air on a constant 'in and out' cycle equivalent to eight times the volume of the room every hour.

Dehumidification, on the other hand, is much more sophisticated. It re-circulates the same air and physically removes moisture from it. Typically, as a by-product of the dehumidification process, for every unit of energy that a Calorex dehumidifier consumes, it will convert 2.5 times this amount to useable heat. The potential energy savings are huge. In fact, compared to traditional heat and ventilation energy, cost savings of 500% are not unusual.

The DH600 dehumidifier from Calorex are versatile floor standing units that are suitable for a number of applications including:

- Industrial agricultural
- Warehousing/equipment stores
- Metals storage
- Pumping stations
- Spare part stores
- Museums and art galleries
- Electrical sub-stations

