



Corrosion banished at top car makers

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

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

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 DH 600 dehumidifiers have now been installed at the store. Since the DH 600 is a fully-packaged unit, retrofit installation was very straightforward with no ducting required.

Calorex specified heat pump dehumidification rather than one of its adsorption dryers (desiccant-based) because running costs are much lower. Adsorption dehumidifiers can achieve RH (Relative Humidity) values below 40%, but for corrosion of steel to be prevented, it only requires the air to be maintained at or below 50% RH – well within the capabilities of heat pump systems.

The DH 600 is a high capacity dehumidifier which will remove up to 1,400 litres of water per day from the air depending on the conditions. The unit uses heat pump technology to control air humidity at between 40 and 90% RH as required and can operate efficiently over a temperature range of 0°C-40°C.

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 DH 600 high capacity dehumidifiers. The equipment was installed by Jaguar's mechanical service contractor CFS Industrial Services Ltd and commissioned by Calorex engineers.



DH 60

Aston Martin

Rust protection does not stop at the factory gate: the finished vehicles need protection from corrosion, particularly if they are stored in unheated garages for any length of time.

RS Williams Ltd of Surrey, one of the leading Aston Martin specialists in the country, has installed a Calorex DH 60 wall-mounted dehumidifier to help keep the cars in pristine condition.

Aston Martins from DB4s onwards are serviced, repaired, restored and prepared for the racetrack by RS Williams. Since customers' cars sometimes have to be stored for extended periods, any consequent corrosion caused by moisture in the garage air must be prevented.

The DH 60 uses heat pump technology to control air humidity at between 40 and 90% RH (Relative Humidity) as required and can operate efficiently over a temperature range of 5°C-40°C. Air is drawn across a cold refrigerated coil within the DH 60 where the water vapour condenses out and is then led away to a waste pipe. Corrosion will be prevented if the air is maintained at or below 50% RH, regardless of the air temperature.

Calorex manufactures dehumidifiers for many other types of application. All products are supported by an in-house applications department and nationwide service network.



DH 60

