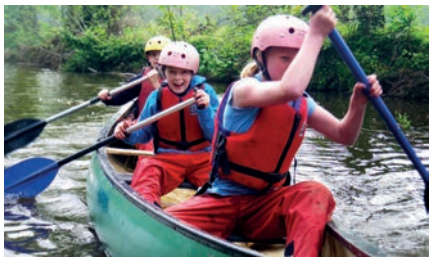
Calorex DH150

A Calorex DH150 dehumidifier provides a reliable and efficient method of solving problems of excess moisture and condensation that can cause damage and deterioration.

Outdoor pursuit centre

Bryntysilio Outdoor Education Centre in Llangollen hosts a range of outdoor activities for parties of children and adults and is open for 50 weeks a year. Even without wet weather, several of the activities (which include canoeing, mountaineering and caving) involve water.



When the visitors return to the centre in the afternoon their outdoor clothing needs to be dried out thoroughly in readiness for the following morning's activities. The new Calorex DH150 dehumidifier installed in the drying room at Bryntysilio does just that, by using heat pump technology to provide a flow of recirculated dry warm air across the wet clothing.

Royal Navy

HMS Raleigh is the largest Royal Navy training establishment in the South West and is the 'front door' for entry into the Royal Navy, where ratings of all branches receive their ten week initial Naval Training. HMS Raleigh also provides a range of specialist maritime training.

Last year HMS Raleigh undertook a major refurbishment of the swimming pool, where sea survival training is carried out, and the associated drying facilities. A Calorex DH150 was installed in the drying room to ensure that wet suits are thoroughly dried between training sessions. The temperature in the room is set to between 25°C-30°C and the dehumidifier works on a 15 hour cycle between 5pm and 7am each day.

Jeremy Lant, director of Winchester-based Air Improve who specified and installed the Calorex unit commented: "I had worked with Calorex previously and I was aware of the Calorex range of commercial dehumidifiers, so it was my first port of call for the HMS Raleigh project."

"The DH150 model was selected for its efficiency and durability. The unit features a turning hood to fit the ducting and it sits in an elevated position off the floor on a galvanised base frame."

"It is important that the diving gear is dried and ready to be used each day and the dehumidifier has been doing just that since it was installed last year."

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Royal Air Force

RAF St Mawgan, near Newquay in Cornwall, had a similar requirement. The base is used for training air crew in ditching and survival techniques in the sea and at the end of each exercise all gear including dinghies, life rafts and survival suits have to be thoroughly washed to remove all traces of corrosive salt and then completely dried.

Previously everything had to be left outside to dry. This arrangement worked during hot summer weather but when conditions were rainy, especially during the winter, the equipment could rarely be dried completely and this adversely affected course planning. Two DH150 units have transformed the drying operation so that most items are dry and ready for use within 24 hours, even when the room is filled with equipment.

Most recently a third DH150 has now been installed in a separate drying room at the base for 203(R) Squadron Operational Conversion Unit where pilots are trained to fly Sea King helicopters on search and rescue operations.

Two Calorex DH150 dehumidifiers maintain the humidity within the Preci-Spark storage facility

Underground storage

Calorex is continuing to maintain perfect climatic conditions at high security storage vaults at Dean Hill Park in Salisbury, following the addition of two new dehumidifier units.

Dean Hill started life as the Naval Armaments Depot and the bunkers are now used as high security storage for a number of national arts organisations. Totally devoid of sunlight and only accessible via internal entrance tunnels, the bunkers were perfect for conversion to vaults.

The first Calorex dehumidifier was installed at Dean Hill in 2009. Since then, the premises has expanded year on year and now houses a total of five storage vaults, each with a Calorex DH150AX dehumidifier.

"Ensuring that the humidity within the storage vaults is kept under control is crucial," says Michael Festenstein, special project manager for Crown Fine Art.

"Since the first dehumidifier was installed five years ago we have been very impressed with the products and level of service from Calorex. We now have five identical humidifiers for each of the vaults and wouldn't hesitate in purchasing more if needed in the future."

The units at Dean Hill have been modified to the client's specification and feature four-sided louvered grilles.

Storage facilities

When leading aerospace component manufacturers Preci-Spark invested in a new 600m^3 storage facility, they turned to Calorex for advice on humidity control.

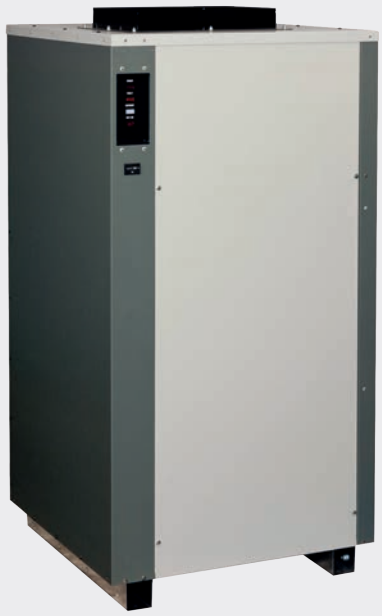
The experts at Calorex responded by specifying and supplying two DH150 ducted dehumidifiers to maintain the humidity levels within the storage facility.

With uncontrolled storage comes the high risk of oxidisation and it is therefore essential to control and reduce humidity.

Preci-Spark delivers components, complex fabrications and assemblies for the latest commercial aircraft engines and semi-conductor equipment. Storage of such equipment, and particularly steel, at the correct humidity is critical and can often reduce the requirement for additional surface protection systems whilst in storage.

Will Jones of Preci-Spark explains: "With the wide variety and large number of different components we manufacture there is a multitude of associated tooling for the jobs. This requires storage at the right humidity levels.

"We have been installing Calorex equipment since 2007 and have found their products to be a reliable and effective way of controlling the humidity in the storage areas of our facilities."



DH150

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, for every unit of energy that a Calorex dehumidifier consumers, 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 DH150 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