



CALOREX SIZING GUIDE

Drying rooms



Our sizing guide is based on tests performed in conjunction with the London Fire Brigade.

Typical unit selections for a fire station drying room

Heavy duty clothing

Dehumidifier model	Number of people using drying room
OTW15	Approx. 6-7 sets of clothing
DH30	Approx. 12-15 sets of clothing
DH60	Approx. 25-30 sets of clothing

Normal duty clothing

Dehumidifier model	Number of people using drying room
OTW15	Approx. 9-10 sets of clothing
DH30	Approx. 18-22 sets of clothing
DH60	Approx. 37-45 sets of clothing

These unit selections are based on the following assumptions:

- Drying time – overnight period of 12-16 hours
- Room temperature – heated to a minimum of 18°C
- Ventilation – no additional mechanical ventilation

* small extract fan to be fitted for dilution of odours

How we make the calculation

- The selection of a dehumidifier is related to the amount of wet clothing and equipment put into the drying room
- The amount of moisture to be removed needs to be known to make an accurate selection
- The number of people using the room gives an indication whilst the volume of the room is of secondary importance

Installations at fire stations



OTW15



DH30



DH60

Calorex dehumidifiers provide an efficient and cost effective alternative to heated drying rooms at outdoor pursuit centres, fire stations/fire training centres, Armed Forces bases and many other similar establishments around the country.

Case study

Practical training for fire fighters also provides plenty of wet clothing at the end of each session, but thanks to two Calorex wall mounted DH60 dehumidifiers the clothing of trainees and instructors at the Greater Manchester County Fire Service's Fire Training Centre is dry and ready for use by the following morning.

Conventional heating and extract fans were previously used at the Centre but when the drying room was enlarged, heat pump dehumidification was chosen as a more efficient and economical method of drying. The new drying room has the capacity to dry up to 50 uniforms at a time.

All Calorex dehumidifiers are fully packaged, easy to install and can operate efficiently over an ambient air temperature range of between 0 and 40°C.

Unlike heating, which merely increases the amount of moisture the air can hold, Calorex units physically remove the moisture from the air. Moist room air is drawn into the dehumidifier and passes over a cold refrigerated coil onto which the water vapour in the air condenses. The dried air is then heated up as it passes over the refrigeration circuit's hot coil and re-enters the room.

The system is extremely energy efficient because it utilises the latent heat released by the condensation enabling the dehumidifier to produce up to 3kW of heat energy for every 1kW of electricity consumed by the refrigerant compressor. This 'free' heating assists the drying process so that drying times and operating costs are substantially improved compared to the use of a conventional heating system.

Calorex manufactures dehumidifiers for many other types of applications including:

Outdoor pursuits, wet leisure centres, police stations, council workers water sports, diving, offices and cyclists.

Calorex also has specialist applications for:

Military, construction sites and changing rooms.

- *All products are supported by an in-house applications department and nationwide service network.*



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