

MEDICAL RESEARCH FACILITY REQUIRED DEHUMIDIFICATION FOR DRY ROOMS

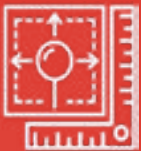
OVERVIEW



Medical Cleanroom



5%RH,
5°C



24m³

Clean rooms require exceptionally strict conditions to be held while also allowing personnel to work and experiments. Central to this application is the manipulation of a climate's dew point, the temperature at which water vapour condenses into droplet form.

Condensation cannot be allowed to occur in a cleanroom environment at the risk of contaminating the experiment results if a laboratory, or production if a manufacturing room. Maintaining pristine conditions while accounting for personnel to enter, leave and work within the space is a challenge, but must be carefully navigated to maintain experiment or product integrity.

A leading research and development company in the medical industry contacted Humidity Solutions to get support in their new dry rooms. These medical facilities support the development of new cutting-edge diagnostic processes for use within hospitals and at-home.



CUTTING EDGE DEHUMIDIFICATION FOR A STATE-OF-THE-ART FACILITY

The medical company designed the dry rooms to allow enough fresh air for two scientists, in compliance with current safety recommendations. The product load factor and an airlock were built into the design to ensure conditions were rigorously maintained.

Due to the sensitive and critical nature of the medical equipment the project required a dehumidifier which could consistently deliver the required environment to safeguard both the scientists working within the cleanroom and the company's end users.

BENEFITS

- + **Environment** balanced to allow for 2 scientists at a time
- + **Wall mounted** to reduce required floor-space in the cleanroom.
- + **-21°C dew point**

DIRECT CONTROL WITHOUT PLANT ROOM ACCESS

Following an initial onsite consultation from our dehumidification specialist the [Cotes C65 desiccant dehumidifier](#) was chosen. Complete with fully integrated control functionality, data logging and a remote-control panel, the C65 allows for precise control over humidity levels without needing to access the plant room.

This ensured the client has full visibility of the conditions within the dry room at all times and allows for constant monitoring. The enhanced monitoring allows for precise control and swift modifications to be made with ease.

HEAT AND HUMIDITY CONTROLLABLE IN ONE MODULAR UNIT

The chosen unit for project can include a pre-cooler, a post-cooler and heating modules, allowing for more precise control over both the humidity levels and energy consumption. In this application, the C65 was installed with a dehumidifier, a post-cooler and a chiller, reaching and comfortably maintaining a constant temperature of 20°C with a dew point of -21°C.

Supported by airlock technology, a manually adjustable process fan and an air regeneration fan, the solution is set to meet and extend the demands of the busy workplace.

“ It's always a pleasure to be part of a project that is providing key research and we are proud to help facilitate cutting edge research. Cotes dehumidifiers have class leading efficiency and quality that can reliably and efficiently maintain required conditions in dry rooms and laboratory applications.

- Freddie Kar,
Dehumidification Specialist