



## Ventilation & Air-Conditioning



# MECHON

Enhanced Environments



**Client:** Henkel Loctite Adhesives

**Technology:** Laboratory Air Conditioning System

As part of the production of lead solder cream, Henkel Loctite are required to mix lead powder and flux agents within a controlled environment, ensuring consistency in product temperature and moisture content throughout the process.

MECHON were commissioned to design and install a central air conditioning system to maintain consistent air temperatures and humidity's throughout the laboratories.

The design entails a purpose designed air handling unit comprising air make-up louvre, filter assemblies, cooling coils, fan assembly, gas fired heater unit, and steam humidifier. Dehumidification is achieved through careful control of the cooling coils (dropping temperatures to below dew point), and then re-heating the air.

A fully functional and adjustable electrical control panel was supplied and fitted, incorporated plc controls and inverter drive for the fan assembly.

The system design made more complex, as the laboratories are divided into four areas, two of which contain high powered dust extraction systems. These dust systems are only operated intermittently, and would have caused great fluctuations in temperatures due to loss of air: and automated VAV system was installed within the four zones to overcome this issue.

Shaping Your Environment