

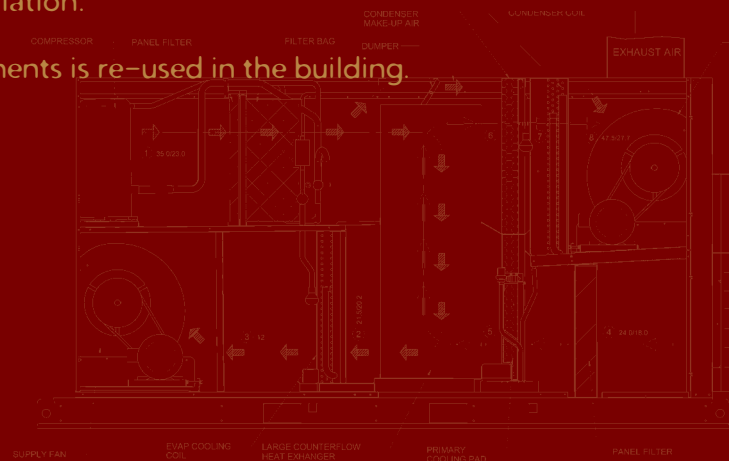
Ventilation & Controlled Environments

Goals:

- Maintain 17–25°C with natural ventilation.
- Waste heat from controlled environments is re-used in the building.
- Maximise energy-efficiency

ECO-AIR technology

Air heated by machinery running fume cupboards and refrigeration / freezing equipment, and air-conditioning and dehumidifying systems is ventilated to the outside through the ECO-AIR units on the roof. The units contain innovative heat exchange technology for energy-efficient heating /cooling of the replacement air that is drawn in through the ECO-AIR units.



Air-conditioning

Some specialist areas require cool conditions (e.g., 18°C, 45 % relative humidity for the collections). Reverse heat-cycle pumps with variable refrigerant volume (VRV) allow flexible, energy-efficient air conditioning. Chilled-water systems provide backup.

Freezer/chiller rooms

A centralised environmentally friendly R 404A refrigerant system with individual control at each evaporator maximises the energy-efficiency.

CONTROLLED ENVIRONMENTS: WASTE HEAT IS RE-USED ELSEWHERE IN THE BUILDING

energy - efficiency



Stainless steel cover plate over structural steel column

Structural concrete floor

Precast concrete stairs

Structural steel

Structural steel

Structural steel

Structural steel

Structural steel

Structural steel

Structural steel

