

HVAC Solutions for a University Campus



OFFICE BUILDINGS

Administrative & teaching staff

Building Services Requirements

- Heating and cooling requirements
- Domestic hot water
- Ventilation and IAQ considerations

Equipment Solutions

Heat pumps are suitable for offices - they can provide heating and cooling and DHW.

Removes requirement for gas boilers - decarbonisation.

MVHR is ideal for office space, and with filtration can provide excellent IAQ.



STUDENT COMMUNAL AREAS

Bars, canteens, event spaces

Building Services Requirements

- Heating and cooling requirements
- Hot water requirements
- Ventilation and IAQ considerations

Equipment Solutions

Heat pumps are suitable for student communal areas and can provide both heating and cooling across the year.

Removes requirement for on-site boilers, helping to decarbonise university buildings.

MVHR is ideal for communal areas and with filtration can provide excellent IAQ.



STUDENT ACCOMMODATION

Building Services Requirements

- Heating requirements - possibly also cooling
- Domestic hot water provision
- Management of comfort and efficiency

Equipment Solutions

Heat pumps can be provided for accommodation buildings.

Accommodation can use waste heat for heating and hot water needs in student accommodation.

MVHR for domestic spaces is ideal for improving IAQ in living space - and can even be applied in humid areas such as showers and kitchens.



LIBRARY/STUDIOS

Building Services Requirements

- Heating and cooling requirements
- Ventilation and IAQ
- Low breakout noise

Equipment Solutions

Heat pumps are suitable for libraries and can provide both heating and cooling across the year.

Removes requirement for on-site boilers, helping to decarbonise university buildings.

MVHR is ideal for library spaces and with filtration can provide excellent IAQ.



LEISURE CENTRES

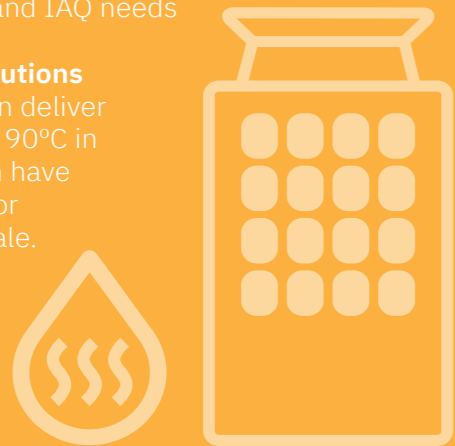
Campus gymnasium, indoor sports facilities, swimming pools

Building Services Requirements

- High hot water requirements
- Heating and cooling requirements
- Ventilation and IAQ needs

Equipment Solutions

Heat pumps can deliver hot water up to 90°C in buildings which have requirements for hot water at scale.



DATA CENTRES

Storage of university data; serving all departments; possible IT specialists working at the campus

Building Services Requirements

- Cooling requirements for data centres

Equipment Solutions

Specialist cooling to suit the density of the data centre is energy efficient and reduces the risk of overheating.

Waste heat can be re-used in other areas of the campus through ambient heat loops.



LECTURE THEATRES

Building Services Requirements

- Heating and cooling requirements
- Ventilation and IAQ considerations (especially post-Covid)

Equipment Solutions

Low GWP VRF systems can provide energy efficient cooling.

MVHR can provide ventilation and filtration can be used to deliver excellent IAQ in occupied spaces.



CAMPUS CONVENIENCE STORES

Building Services Requirements

- Heating and cooling requirements

Equipment Solutions

Direct expansion (DX) split systems are suitable to provide heating and cooling of shop areas.

