EVAPORATIVE COOLING - BRISTOL COUNCIL OFFICES

The largest evaporatively cooled office in Europe

Bristol City Council’s new 6,000sqm call centre project, for 700 staff, involved refurbishment of a complete floor of a modern office building. The council required a low carbon footprint cooling solution to reflect their environmental and financial objectives.

Bristol City Council Energy Management Unit has the following targets:

- To reduce the city council’s energy consumption by 10% of the 2003/04 figure by the year 2010.
- To reduce the carbon emissions of the council by 60% by 2050, recently modified to be a 3% reduction year on year up to 2020.

A key challenge for the Celsius EcoCooling design was to avoid roof and wall penetrations. Additionally an internal noise level of NC45 was specified.

A cooling requirement of 600kW was fulfilled by 22 top discharge EcoCoolers fitted within the building inside sound attenuated cabinets. Each EcoCooler is thermostatically controlled and linked to extraction to provide a balanced ventilation system.
This unique installation method has provided the council with the largest evaporatively cooled office space in Europe and helped them continue to reduce their energy consumption and associated carbon emissions.

The large open plan areas have ceiling mounted grills that discharge the cooled air into the space and extraction grills that then return the warm air into the ceiling void to be extracted by the soffit extraction units. None of the Celsius system is visible externally.