



UMKC Student Union Building chooses Danfoss AB-QM

Having outgrown their previous building, the new Student Union building at the University of Missouri Kansas City (UMKC) campus was built in 2010.

The new building is 110,000 square feet; designed to be US Green Building Council's Leadership in Energy and Environmental Design certified.

The facility features include a two-story bookstore, large theatre, coffee shop, food court, office space, and open congregation areas. Green features were incorporated into the project, including outside bicycle storage, public transportation access, storm water control, and a rooftop patio and garden.

The hydronic heating and cooling system designed by Hendersen Engineers Inc., focuses on energy-savings and LEED. Danfoss AB-QM pressure-independent control valves (PICV) were used on all the Air Handling Unit (AHUs) and Variable Air Volume (VAV) boxes throughout the facility. These unique Danfoss AB-QM valves adjust



automatically to changing system and load conditions.

The amount of hot or chilled water available perfectly matches the space loads. Utilizing the AB-QM PICV allows UMKC to avoid "Low Delta T Syndrome" and helps to force the Chillers and Boilers to work at their most efficient "sweet spots".

The University of Missouri system has standardized on pressure-independent control valves for all of their new construction. Officials note the energy cost-saving benefits can be substantial.

Danfoss provides case histories documenting energy savings, and it is not unusual to see up to 50% energy savings at low load conditions when using the Danfoss AB-QM.

