Modine Atherion® Units Provide Stellar Climate Control for STAR Tower

Modine’s commercial HVAC technology is being used in exciting new facilities like the 10-story STAR Tower on the University of Delaware, the only high-rise building in Newark, Delaware.

Built in 2018, the glass building can be seen from all over the city. It’s now the focal point of the university’s science and research campus, which is also an enterprise zone that houses space to private-sector research and development companies. The tower was developed by Carlone Donne and Associates.

Finding the Right DOAS

Engineering firm Furlow Associates Inc. worked with Building Systems & Services Inc. to find a compact dedicated outside air system (DOAS) unit that could meet all the climate control needs for the building. They chose to install two Modine Atherion® dedicated outside air systems (DOAS), including Energy Recovery Modules, on the roof of the tower. Modine Control Systems provide simple integration into building automation systems.

“We were looking for a compact DOAS unit — the smaller, the better — with gas heat and a total energy wheel with still enough power/capacity to serve a 10-story tower. Modine’s great attention to systems was important, too.”

Paul Wizerman, project manager at Furlow Associates Inc.

The DOAS systems are highly efficient and are used to introduce outside air to ensure good indoor air quality.

Dependable Results

Atherion® can reliably regulate temperature and control humidity. The optional Energy Recovery Module is an aluminum energy recovery wheel that spins in incoming and outgoing air and uses exhaust from the building to preheat or precool the energy entering the building. This reduces the electricity load required for mechanical heating and cooling.

The units can be customized to meet any outside ventilation air requirements. The advanced Energy Recovery Module option boosts the system’s efficiency, potentially saving thousands in annual energy costs. The module includes a bypass function that saves fan energy during economizer mode and helps lengthen the lifetime of the energy-recovery wheel.

Written by Modine HVAC