



Northern Lights College offers a wide array of Trades and Apprenticeships, Academic and Vocational and Online programming for students of all ages across five campuses and three access centres in northeastern British Columbia.

CASE STUDY

Higher Education

Facility at a glance

Name

Northern Lights College

Location

Dawson Creek and Fort St. John, BC, Canada

Issue

Fit 2 million cubic feet of air per hour through just a single 32" door

Solution

Daikin Applied's Vision® Semi-Custom Indoor Air Handlers with ECM Fan Array

Innovative Vision® Air Handling Solution Fits the Need for Canadian Post-Secondary Institution

Issues

Northern Lights College, a post-secondary institution in Northern British Columbia, faced a big problem requiring a small-scale solution. Two of their five campuses, in Dawson Creek and Fort St. John, needed HVAC overhauls—and fast. The bigger problem was actually a small one in Dawson Creek: the college needed to fit 2 million cubic feet of air per hour through a 32" door.

Jay Jagpal, salesperson for Daikin sales representative Olympic International, needed a high efficiency unit in a small package. While size and delivery timeliness were important, Jay knew the equipment also must exceed the more common goals that schools have for increased efficiency, improved air quality, and a comfortable environment for the up to 10,000 students who study and commune in the buildings.

Solution

Achieving all of these combined goals traditionally required schools or businesses to seek expensive, custom air handlers. Then an industry-first solution arrived: Daikin Applied's Vision® Semi-Custom Indoor Air Handlers. That 32" door opening? No problem.

The engineering found in Daikin Vision reduced the cabinet length by nearly 50% in two innovative ways. First, Daikin's factory-installed ECM fan array eliminated nearly three feet of cabinet space by mounting directly to its impeller. As the only provider of this technology installed directly at the factory, Daikin takes full advantage of both the smaller footprint and the increased efficiency that comes from this smarter motor. This intelligent design, not only fit the tight space, it provided a cost-effective solution with year-over-year energy savings for the life of the unit.

Second, on the outside, the customizable cabinet, using Variable Dimensioning™ design, could be sized in 2-inch increments (both height and width) to meet this demanding installation requirement, making it the ideal retrofit solution. The team was able to install the Vision unit in the existing mechanical room without removing any interior walls or existing infrastructure, saving the college both time and money.

Outcome

In the spring of 2017, the unit was successfully installed in the existing mechanical room of Northern Lights College. The school saved thousands when the engineering team designed a small-footprint solution that required no building modifications. The Daikin team installed a space-saving solution with industry-leading technology, instead of knocking down walls.

Daikin Applied manufactured the Vision quickly, meeting the college's aggressive schedule. With Daikin's innovative, semi-custom air handler, building management could rest assured that the students and faculty were learning and teaching in a comfortable environment year-round.



Dawson Creek Campus equipment room