

SAVE ENERGY AND IMPROVE INDOOR AIR QUALITY FOR LEED PROJECTS

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How do you select heating/ventilating equipment for green buildings and LEED compliance? Let's make that question even tougher. What if the metal building is a large warehouse, manufacturing facility or assembly plant for which there are currently very few guidelines? The simple answer is to use a professional and specify a heating system that is both energy efficient and improves indoor air quality. A specific example is the Cambridge direct gas-fired, Blow-Thru™ Space Heater that is both very energy efficient and improves indoor air quality by heating the building with 100% fresh air.

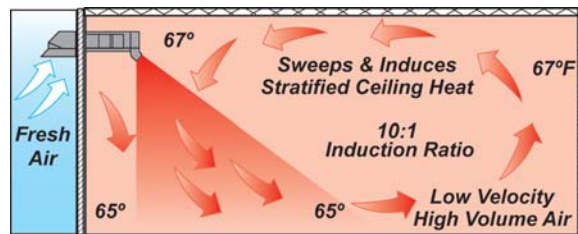
LEED-NC (New Construction and Major Renovations) is the standard a metal builder is most likely to encounter. It is a point-based system that includes five categories: sustainable site design, water efficiency, energy efficiency, materials and resources used, and indoor environmental quality. Energy efficiency and improved indoor air quality are the two areas where selecting the right HVAC equipment will have the biggest impact. Five of the seven prerequisites and 30 of the 69 available LEED points are found in these two LEED categories.

ENERGY EFFICIENT HEATING SYSTEM

Most high-level LEED certified projects want at least 35% improved energy efficiency, using ASHRAE Standard 90.1 as a baseline. For heating a warehouse or a large open area in a manufacturing plant, this means a LEED certified project wants a heating system that is 35% more energy efficient than indirect gas-fired furnaces, unit heaters or air turnover (air rotation) systems as described in Standard 90.1. Direct gas-fired, Cambridge Blow-Thru Space Heaters can meet and exceed that requirement.

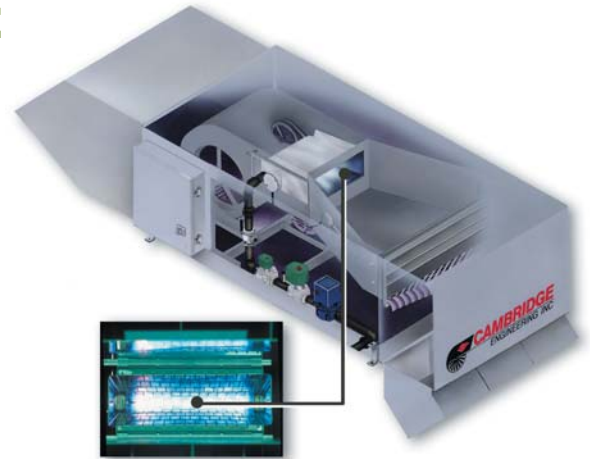
IMPROVED INDOOR AIR QUALITY (IAQ)

A primary goal of LEED standards is to prevent any development of IAQ problems in the built environment. Lack of adequate ventilation in a warehouse or manufacturing facility can cause IAQ problems by not purging fumes and odors from the space. On the other hand, utilizing exhaust fans to remove fumes and odors without providing a corresponding supply of tempered make-up air adds to the infiltration load on the building. During the winter, this creates cold areas throughout the facility related to air infiltration at dock doors and other areas.



This is a common occurrence in large buildings heated with infrared (radiant) units, unit heaters and air turnover systems. This means cold, uncomfortable employees and higher energy costs. The solution for a LEED or any other project is the use of direct fired, Blow-Thru Space Heaters that will heat just the right amount of fresh outside air required to address the building's combined air infiltration, make-up air and space heating needs.

The most recent version of the LEED-NC standards (v2.2) calls for a two-week building flush-out prior to occupancy as part of the requirements for Indoor Environmental Quality compliance (EQc3.2). The use of Blow-Thru Space Heaters can help a project meet this requirement.



Cutaway view of Cambridge direct gas-fired Blow-Thru™ space heater with patented burner.

USE A PROFESSIONAL

As contractors, it is important to accelerate through the learning curve as quickly as possible whenever we try something new. There is no better way of doing this on a LEED project than to hire someone with experience in delivering a LEED-certified or high-performance building. The question is, "Who are these people?" The U.S. Green Building Council offers a professional examination for those who want to become LEED accredited. However, just because someone has an "AP" behind their name does not mean they know how to deliver a certified project. Following are a few important questions to ask when interviewing candidates for your team:

- Has the person or firm been through the entire process of LEED certification?
- What services were provided for the team?
- What level of certification was desired and what was delivered?
- How many change orders were written that directly related to "green" items?
- How long after completion did the project receive its certification?

Answers to these questions will help define the difference between a LEED Accredited Professional and a LEED "practitioner". A LEED practitioner like Vertegy, can help you bring value to your client by discovering low cost ways to add sustainability to your project and deliver higher levels of LEED certification.

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