

Popular space heating system makes inroads in New England market

Direct natural gas-fired space heating system well-suited to warehouses and distribution centers

The Springfield Industrial Center is a 1.4 million-square foot complex with 11 separate buildings. Space in the complex is rented by companies using it for equipment storage, warehousing inventory and light manufacturing. Heating the buildings, which have large open spaces, has always been challenging. Originally, the Springfield Industrial Center had a central steam plant with coal-fired boilers. And later, oil-fired boilers generated the steam for distribution via an underground system of tunnels. However, after 40 to 50 years on the job, the boilers were aging, so the Springfield Industrial Center began researching options for a new heating system.

With multiple tenants and differing heating requirements, Elaine Queiros, general manager of the Springfield Industrial Center, wanted equipment that could meet the requirements for each space. After looking at several options, Queiros chose Cambridge Engineering direct natural gas-fired space heaters. Natural gas lines had been installed on the site for process use by a former tenant, so Bay State Gas Company only had to upgrade and install additional piping to the facility.



52 space heaters provide heat for tenants at the Springfield Industrial Center.

The space heaters Queiros chose have several unique features. The units are wall- or roof-mounted and draw in fresh air for heating. Having space heaters that draw in fresh air rather than recycling the air in the building creates a better environment for employees. Another important benefit of roof and wall-mounted space heaters is that valuable floor space is not sacrificed for heating equipment.

Higher temperature by design

The space heaters have a discharge temperature (the temperature of heated air leaving the unit) of 160 degrees Fahrenheit, higher than other space heating equipment. The units have a "blow-thru" design which allows outside air to be

drawn into the unit, passed through the blower, then heated by the natural gas burner. With the burner placed after the blower, the air can be heated to higher temperatures for comfort, while the blower motor and

components stay cool, so they last longer and require less maintenance. Systems designed with burners that heat air before it reaches the blower are limited to a discharge temperature of just about 120 degrees Fahrenheit to reduce wear and tear on the blower.

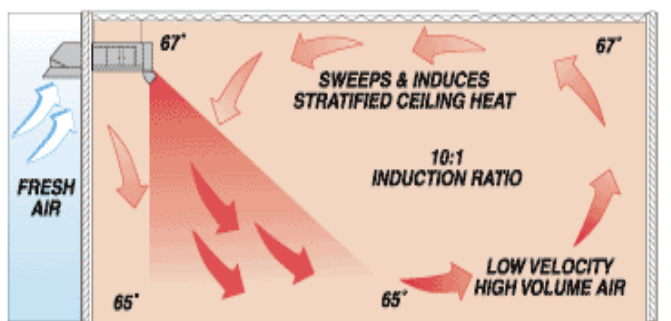
There are now 52 direct natural gas-fired space heaters installed in the Springfield Industrial Center. The units meet the specific needs of each customer, with comfort controls in each area, making the system more efficient and cost effective.

Air movement reduces stratification

The blowers force the air downward to the floor at a high velocity. Blowing the heated air downward at a high speed creates air currents that draw in air already in the room, setting up a circular floor-to-ceiling air pattern throughout the area. This circular air movement reduces the stratification that occurs as hot air naturally rises toward the ceiling and also reduces stagnant air in the room. Air movement also keeps the upper levels of high-ceiling warehouses at comfortable temperatures for employees working in mid- and upper-level storage areas.

There are now 52 direct natural gas-fired space heaters installed in the Springfield Industrial Center. The units meet the specific needs of each customer, with comfort controls in each area, making the system more efficient and cost effective. The units have a 92 percent efficiency rating and a lower first-cost than other kinds of space heating systems. "While the system has not been in place for an entire heating season, we are seeing significant operating savings over previous years," said Queiros.

For more information on natural gas space heating systems, please fill out and mail the enclosed postage-paid reply card.



A high velocity blower keeps heated air moving, reducing the stratification.