

# Comparative Case Study

Cambridge Space Heaters vs. Draw Thru Make-up Air

## Large Retailer Midwest

### Cambridge Space Heaters



#### Operating Costs

Based on 6,096 Heating Degree Days @ 60°

\$0.13/ft<sup>2</sup> Gas cost @ \$1.00/therm

\$0.02/ft<sup>2</sup> Electric cost @ \$0.08/kWh

**\$0.15/ft<sup>2</sup> Total cost**

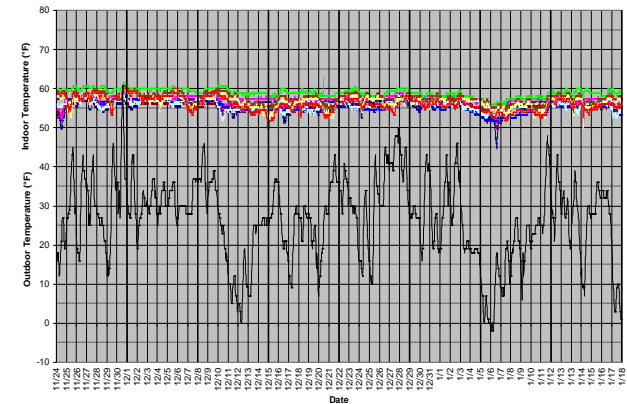
#### Building Specifications

- 1,348,000 ft<sup>2</sup> x 36' high
- R-19 Roof / R-10 Walls
- Designed for 60° @ -15°
- Located in Northern Iowa

#### Heating System

- (17) Cambridge Space Heaters
- Roof top mounting
- 37,400 MBH total
- 192,100 CFM total
- 127.5 HP total

#### Performance



± 15° indoor temperature variation  
from 60° setpoint

### Draw Thru Make-up Air Heaters



#### Operating Costs

Based on 5,658 Heating Degree Days @ 60°

\$0.19/ft<sup>2</sup> Gas cost @ \$1.00/therm

\$0.03/ft<sup>2</sup> Electric cost @ \$0.08/kWh

**\$0.22/ft<sup>2</sup> Total cost**

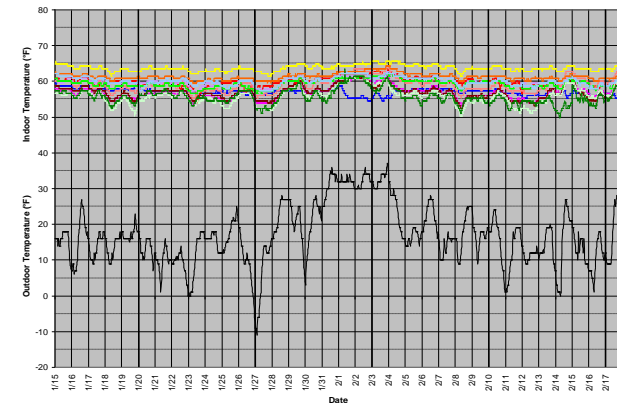
#### Building Specifications

- 1,348,000 ft<sup>2</sup> x 36' high
- R-19 Roof / R-10 Walls
- Designed for 65° @ 0°
- Located in Columbus, OH

#### Heating Systems

- (15) Draw Thru Make-up Air Heaters
- Roof top mounting
- 33,000 MBH total
- 270,000 CFM total
- 225 HP total

#### Performance



± 10° indoor temperature variation  
from 60° setpoint

### Summary

The Cambridge system used over **32% less** total energy in a colder climate. If the Michigan facility had installed a Cambridge system they could have saved approximately **\$94,000/year** operating at \$0.15/ft<sup>2</sup> vs. \$0.22/ft<sup>2</sup>.



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