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# COMPARATIVE CASE STUDY

**Cambridge Space Heaters vs. Draw Thru Make-up Air**

## Large Retailer Distribution Centers

## Cambridge Space Heaters

### Operating Costs

Based on 6,299 Heating Degree Days @ 60°

$0.08/ft² Gas cost @ $0.50/therm
$0.02/ft² Electric cost @ $0.08/Kwh

**$0.10/ft² Total cost**

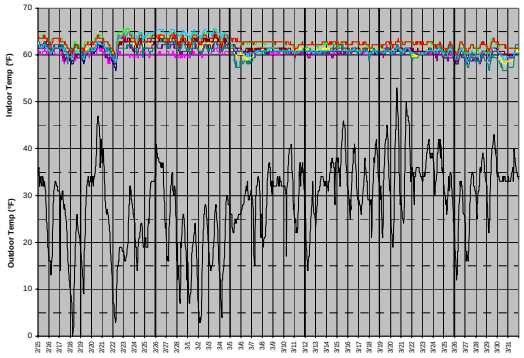
### Building Specifications

- R-14 Roof / R-10 Walls
- 1,400,000 ft² x 36' high
- Designed for 55° @ -7°
- Located in Upstate NY

### Heating System

- (17) Cambridge Space Heaters
- Roof top mounting
- 2200 MBH each
- 11,600 CFM average
- 197,150 CFM total
- 162.5 HP total - intermittent

### Performance




± 6° indoor temperature variation
from 60° setpoint

## Draw Thru Make-up Air Heaters

### Operating Costs

Based on 5,179 Heating Degree Days @ 60°

$0.21/ft² Gas cost @ $0.50/therm
$0.03/ft² Electric cost @ $0.08/Kwh

**$0.24/ft² Total cost**

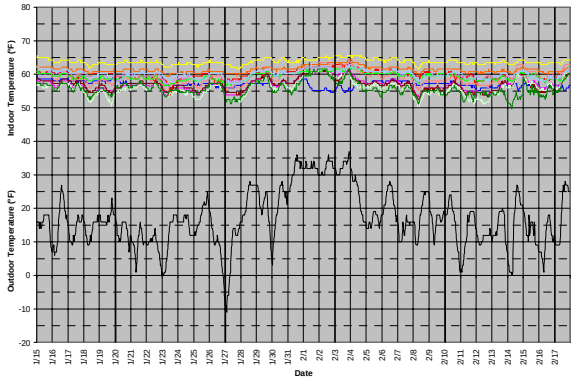
### Building Specifications

- R-19 Roof / R-10 Walls
- 1,400,000 ft² x 36' high
- Designed for 55° @ 0°
- Located in Kalamazoo, MI

### Heating System

- (15) Draw Thru Make-up Air Heaters
- Roof top mounting
- 2200 MBH each
- 18,000 CFM each
- 270,000 CFM total
- 225 HP total - intermittent

### Performance




± 10° indoor temperature variation
from 60° setpoint

## Summary

The Cambridge system used **58% less** total energy with more even temperatures in a colder climate.

If the 1,400,000 ft² facility had installed a Cambridge system they could have saved approximately **$196,000/year** operating at $0.10/ft² vs. $0.24/ft².

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