

# Comparative Case Study

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

### Warehouses

#### Cambridge Space Heaters



#### Operating Costs

Based on 6,132 Heating Degree Days @ 65°

\$0.12/ft<sup>2</sup> Gas cost @ \$0.50/therm

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

**\$0.14/ft<sup>2</sup> Total cost**

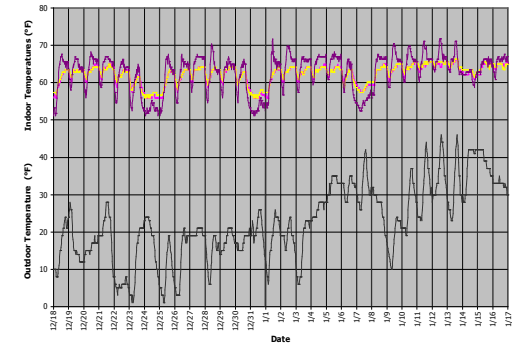
#### Building Specifications

- 200,000 ft<sup>2</sup> x 25' high
- R-15 Roof / R-15 Walls
- Located in Central Ohio

#### Heating System

- (4) Cambridge Space Heaters
- Thru wall mounting
- 4,800 MBH total
- 27,800 CFM total
- 20 HP total – intermittent w/ setback

#### Performance



**±6° indoor temperature variation from 65° setpoint**

#### Draw Thru Make-up Air Heaters



#### Operating Costs

Based on 6,440 Heating Degree Days @ 65°

\$0.30/ft<sup>2</sup> Gas cost @ \$0.50/therm

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

**\$0.33/ft<sup>2</sup> Total cost**

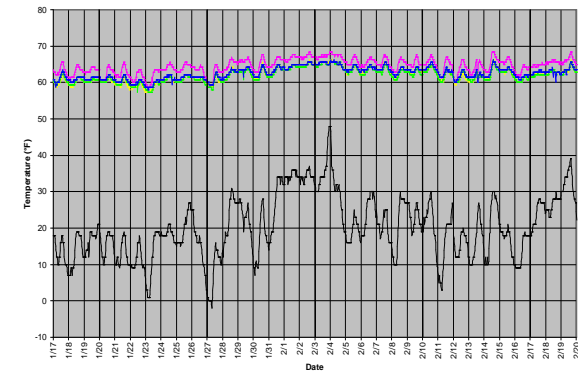
#### Building Specifications

- 200,000 ft<sup>2</sup> x 34' high
- R-12 Roof / R-8 Walls
- Located in Detroit, MI

#### Heating System

- (4) Draw Thru Make-up Air Heaters
- Roof top mounting
- 6,400 MBH total
- 41,976 CFM total
- 30 HP total - intermittent

#### Performance



**12° indoor temperature variation**

### Summary

The Cambridge system used over **58% less** total energy.

If the Detroit, MI facility had installed a Cambridge system they could have saved approximately **\$38,000/year** operating at \$0.14/ft<sup>2</sup> vs. \$0.33/ft<sup>2</sup>.



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