

# CASE STUDY DISTRIBUTION COMPANY



**JOHNSON**  
AIR-ROTATION® HVAC SYSTEMS

## DISTRIBUTION COMPANY HEATS TWICE THE SPACE WHILE CUTTING ORIGINAL FUEL COSTS

APPLICATION:..... Distribution Company Specializing  
in Grocery Products

LOCATION:..... Wisconsin

BUILDING SQUARE FOOTAGE:..... 130,000

BUILDING CUBIC FOOTAGE:..... 2,921,600

DOCK DOORS:..... 13

### DESIGN

- Company growth resulted in the need for nearly doubling the facility to approximately 245,000 square feet with an average ceiling height of 32 feet.
- The existing 130,000 square foot facility was heated with gas unit heaters.

### SOLUTION

- Johnson worked with the distribution company and a local engineering firm to have the old gas unit heaters removed.
- Those were replaced with three Johnson Air-Rotation Systems to heat the newly expanded 245,000 square foot space.

### RESULTS

- The Wisconsin Public Service Gas Company provided a fuel usage analysis, which calculates gas use for the year prior to the addition of the Air-Rotation Systems and for the year after.
- To make before and after comparisons accurate, all figures have been adjusted for degree-days to reflect the difference in the daily temperatures between the winters before and after adding Johnson Air-Rotation Systems.
- The distribution company nearly doubled the building size while cutting fuel costs by over 30%! Johnson Air-Rotation Systems are heating nearly twice the space with less gas than the distribution company used before the addition.
- With a conservative cost per therm of \$1.06, this equals more than \$50,000 in savings in one heating season alone!
- This savings results in a return on investment in as little as 2-3 years.



### TOTAL THERMS USED:

Before @ 130,000 sq. ft.... 131,277  
After @ 245,000 sq. ft..... 84,054  
Change..... -36%

### BTU'S PER CUBIC FT. PER DEGREE-DAY:

Before.....56  
After.....17  
Change..... -70%



Named one of the Fastest  
Growing Companies by  
Inc. Magazine



Johnson Air-Rotation® HVAC  
Systems are Manufactured  
in the USA



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