

## CASE STUDY: DRYER/COOLER EFFICIENCY IMPROVEMENT

SYSTEM TYPE: Gas-Fired Heating

### PROJECT FINANCIALS

- Total Turnkey Installed Cost: \$ 14,450
- Annual Energy Cost Savings: \$ 7,500
- Simple Energy Funded Capital Payback: 1.9 years
- Average Project IRR: 71%
- CO2 Equivalent Reduction : 54 tCO2e (Natl. Avg. Emission Rate)

## PET FOOD MANUFACTURING Facility Installs Patented Nozzle & Blower, Reduces Gas Consumption and Decreases Cost of Finished Product

### System Description

- Dryer/Cooler Unit
- Gas fired heating (can also be applied to propane, steam, electric, etc. heating)
- Nominal capacity of 14 tons of product per hour

### System Opportunities

- The combination dryer/cooler at the facility was used for short specialty runs on various pet food products
- The analysis considered reductions in natural gas usage by reducing the leakage or infiltration from the heated dryer section into the cooler section of the dryer/cooler
- Natural gas flow monitoring was performed on the dryer/cooler on specific products and air flow measurements were taken to determine the leakage or infiltration mass flow of air from the heated dryer sections into the cooler section
- It was determined that an excessive amount of heated dryer air was infiltrating or leaking into the cooler zone, thereby unnecessarily increasing the use of natural gas

### Project Description

- Installed the patented nozzle and blower to reduce excessive amount of infiltrating and leaking air into cooling zone
- Started up system and balanced air flow to optimize savings

### Project Benefits

- Reduced natural gas consumption
- Proportional savings will also be realized when using steam, electric, propane, or other similar dryer/cooler heating systems
- Decrease in cost per finished unit of product
- The technology can be used on a any dryer/cooler producing pet foods, aquatic feeds, cereals, snacks, and the like

## Plant Profile

- Pet Food Manufacturing
- Production, Packing areas, Administrative Offices, and Warehouse

## Key Benefits

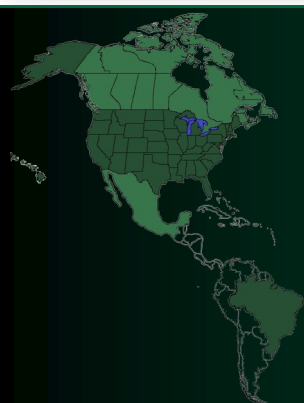
Cost Savings	\$ 7,500
Carbon Reductions	54 tCO2e (Natl. Avg. Emission Rate)
Fuel Type	Natural Gas
Payback	1.9 Years
Project IRR	71%

## Financial Data

Investment	\$14,450
System	Dryer/Cooler Unit/Gas fired heating (can also be applied to propane, steam, electric,
Life Expectancy	N/A
Incentives/Rebates	N/A
Payback Period	1.9 Years



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