

CASE STUDY: Energy Efficiency Is Good For Business

Nissin Brake Ohio, Inc.

Halting Energy Waste, Accelerating Savings

The automotive industry is notoriously unpredictable, and it can be tough for automotive suppliers to keep pace with industry variability. Nissin Brake Ohio, Inc.—which provides parts to Harley-Davidson, Honda and other major auto companies—increasingly has a leg up on its competitors thanks to lower annual operating expenses achieved through a multi-year effort to ratchet up its energy efficiency.

Cutting energy waste has helped Nissin manage costs as production varies during fluctuations in the auto market. When customer demand shifts, Nissin can more easily stabilize expenses due to lower annual operating costs—thanks to using less energy. “Traditionally, all eyes are on the manufacturing departments to improve cost and profitability. These projects allow our facilities group to also make a significant contribution to improving cost factors,” said Ken Lee, vice president of Operations.

“Our bottom-line costs change from month-to-month depending on production volumes,” said Dana Ware, manager of Production Support. “Controlling our energy costs is one way to stabilize overall costs and to deal with production volume changes.”

Partnering with its utility, AEP Ohio, Nissin leveraged incentives from 2008-2013 to invest about \$185,000 in energy-efficient interior lighting, occupancy sensors, and upgrading compressed air system, HVAC control and injection molding press equipment. Utility incentives reduced the payback period by more than one year, explained Ware, and were essential to gaining internal buy-in from Nissin leadership. “The incentive payments helped gain these approvals by covering more than 30 percent of the project investments. Those projects would not have been completed if AEP’s incentive program did not exist.”

Nissin did its homework before implementing efficiency improvements, including hiring an external consultant to identify opportunities and help navigate the rebate application process. Ware, along with members of facilities maintenance were among Nissin staff who took advantage of AEP workshops, that brought together manufacturers to learn about potential energy efficiency projects and what worked for their businesses.

Nissin Brake Quick Facts

Type of Project:	Lighting, compressed air, chiller and manufacturing equipment upgrades
Investment:	More than \$1.67 million since 2008
Payback period:	Approximately 2-3 years for most projects
Utility Incentives:	More than \$289,000 since 2008
Savings:	\$3.4 million in avoided energy costs since 2008

FINDLAY, OHIO



“Controlling our energy costs is one way to even out overall costs and to deal with production volume changes. Leveraging incentives in partnership with our utility made these efficiency projects possible.”

- Dana Ware,
Manager of Production Support, Nissin Brake



Energy savings continued on back ▶

Let the Energy Savings Continue:

Nissin has continued to accelerate efficiency with the support of additional utility incentives during 2014-2016, through more efficient chiller operations, HVAC control and exterior lighting systems, plus, additional upgrades to compressed air and injection molding press equipment.

Prior to upgrading its air compressors, all were running at max speed 24/7 and using a significant amount of energy in the process. The overall upgrades to the compressed air system included: lowering the operating pressure from 115 psi to 90 psi; installing a sequencer control system which automatically monitors demand and operates the system more efficiently; and an annual air leak analysis program.

“The opportunity for energy savings is even more significant than we thought,” Ware said, “and the sequencer control system allows us to measure operational costs more accurately. We’re saving money with the reduction of compressed air we use and the operating time of the compressors has been lowered. By operating less time, the machines will last longer, reducing the need for capital investment.”

Since 2008, Nissin has used about \$289,000 in rebates from AEP to supplement private capital to fund the investments, which have saved approximately 10 million kilowatt-hours of power—equivalent to powering almost 1,000 homes with electricity for a year. As a result, Nissin has saved \$3.4 million in avoided energy costs since 2008. These savings are just one of the rewards for increasing efficiency. “Energy improvements have a significant ongoing return on investment, by helping to lower operating costs,” Lee said. “The incentive programs result in a visible return on investment, which has helped convince management to reinvest those incentives into further energy improvements.”

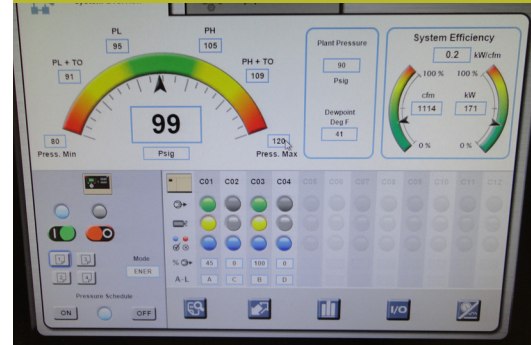
Using less energy to get the job done has helped Nissin to reduce climate emissions by more than 7,268 tons—equivalent to taking 1,425 cars off the road for a year—and making progress toward the company’s goal of cutting greenhouse gas emissions by 10 percent over 10 years.

Nissin’s 650 employees are also benefitting from lighting and HVAC upgrades through a brighter and more comfortable workplace. And better lighting has helped to reduce operator fatigue, which translates into an overall increase in the quality of the parts Nissin is delivering to its customers—proof that putting the brakes on energy waste is good for business.

Nissin Brake Ohio, Inc. is a subsidiary of Nissin Kogyo Co. Ltd., a global developer and manufacturer of comprehensive brake systems, with 22 manufacturing plants around the world employing more than 10,000 people.



Efficient injection molding equipment is saving about \$50,000 annually



A control system to monitor compressed air power helps measure operational costs



Ken Lee, vice president of Operations, Nissin Brake receives an incentive rebate check from Lenny Lammlein, customer service engineer, AEP Ohio

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The Alliance for Industrial Efficiency is a growing coalition of business, labor, and non-profit organizations that advocate for policies that increase U.S. manufacturing competitiveness through industrial energy efficiency, especially the use of Combined Heat and Power (CHP) and Waste Heat to Power (WHP). To date, the Alliance has focused on improving financing for CHP and WHP, increasing demand for CHP and WHP, and incorporating CHP and WHP in the Environmental Protection Agency’s Clean Air Act rules.

For more information go to alliance4industrialefficiency.org or call 202.365.2194

