

DUST OFF THE SAVINGS:

HOW DIVERSIFIED WOODCRAFTS TOOK CONTROL OF ITS ENERGY COSTS

Diversified Woodcrafts, a commercial wood furniture manufacturer in Suring, WI, saw an opportunity to reduce its energy costs and sought out FOCUS ON ENERGY® for help modifying its dust collection system.

Diversified Woodcrafts' new dust collection configuration included the addition of a variable frequency drive along with automatic blast gates. Controlled by pressure and velocity, the blast gate controls allow the collection gates to open only when a machine is operating, eliminating unnecessary demand on the dust collection system.

These controls not only freed up capacity on the existing system but they also allowed Diversified Woodcrafts to eliminate an entirely separate dust collection system. The addition of a VFD on the large dust collector motor further enhanced the business's annual savings, which totaled **more than \$64,000**. The furniture manufacturer also received **more than \$32,000 in financial incentives** from Focus on Energy, resulting in a payback period of only 1.6 years on this project.

"We absolutely want to save money but we also invest in new equipment and new technology to reduce our overall footprint," said Plant Manager, Greg McClure. See the table to the right to learn about other ways Diversified Woodcrafts cut operating costs and continued supporting its goal of being an environmental steward.

Energy Efficiency Improvements	Annual Energy Savings	Focus on Energy Incentive
Dust Collection System		
Variable Speed Motor and Automatic Blast Gates	\$64,376	\$32,335
Compressed Air System		
Variable Speed Compressor	\$3,529	\$2,750
No Loss Condensate Drain	\$159	\$100
Cycling Refrigeration Air Dryer	\$372	\$150
Heat Recovery for Space Heating	\$4,235	\$6,000
Compressed Air Load Shifting	\$2,106	\$4,899
Compressed Air Leak Surveys and Repairs	\$2,258	\$400
Lighting		
LED Lighting	\$1,325	\$1,470
TOTAL SAVINGS	\$78,359	\$48,105

(Blended rate of \$0.104/kWh and \$0.70/therm)

More than just saving energy

Consider the non-energy benefits of upgrading your equipment including:

- Extended equipment life
- Improved safety and system efficiency
- Increased employee productivity





Other Ways to Carve Out Savings

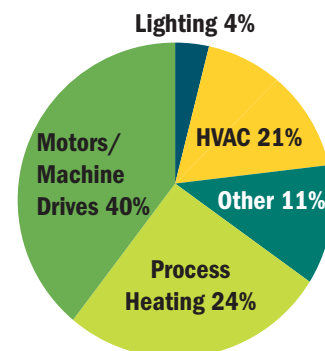
Start simple

- Perform routine equipment maintenance, including replacing filters and bearings
- Complete a compressed air survey to find and repair leaks
- Upgrade existing HID and fluorescent fixtures with LEDs
- Install controls to reduce light levels or turn fixtures off when spaces are not occupied

Take it a step further

- Install a variable speed compressor where varying loads are present
- Install a cycling refrigerated air dryer to maximize system efficiency
- Add controls to dust collection systems to reduce motor runtime and air make-up demands
- Utilize LEDs for curing varnishes instead of high-wattage halogen lamps
- Upgrade your kiln with variable frequency drives on the fans and add humidification controls to optimize the drying process

Wisconsin woodworking: How energy is used



Note: Machine Drives includes pumps, compressors, and motors.

Note: HVAC is heating, ventilation, and air conditioning used for space comfort, but excludes process heating and cooling.

Learn more

To learn more about the Focus on Energy incentives available for your business, visit focusonenergy.com/business or call 888.623.2146.

REDUCING ENERGY WASTE ACROSS WISCONSIN

Focus on Energy, Wisconsin utilities' statewide program for energy efficiency and renewable energy, helps eligible residents and businesses save energy and money while protecting the environment. Focus on Energy information, resources and financial incentives help to implement energy efficiency and renewable energy projects that otherwise would not be completed.

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