

Energy-Saving Tips for Manufacturers

By Dale Wicker • Michigan Manufacturing Technology Center

Manufacturing processes require vast amounts of energy including: heating, cooling, lighting, office equipment and the production line itself. So it shouldn't come as a surprise that energy costs continue to be a major expense for manufacturers.

Yet, when it's time to reduce expenditures, businesses often will try other cost-cutting measures first, rather than scaling back on their energy consumption. It's time to alter this thinking — and focus on energy-saving initiatives that will significantly reduce expenses and positively impact your bottom line. Here's how:

Process Heating

Process heating is required to make most consumer and industrial goods, and it is responsible for more than one third of the energy use within a manufacturing facility. Manufacturers can save energy within this area by:

- Assessing heat transfer surfaces
- Controlling exhaust gases
- Ensuring proper furnace installation
- Evaluating air-to-fuel ratios
- Installing waste heat recovery systems
- Reducing steam demand
- Upgrading boilers to the latest energy-efficient models
- Utilizing alternative fuels with higher combustion efficiency

Lighting

Since most manufacturing facilities tend to be well-lit, it's critical that energy-efficient lighting is properly installed. Lighting alternatives include:

- Using florescent or LED fixtures
- Utilizing daylight as much as possible through skylights and clerestories
- Adjusting the levels of light and turning off lights during the slow/off hours



“By following these tips and focusing on the areas mentioned... manufacturers can see significant savings on their next bills!”

Consumption Periods

Electrical rates can vary based on the time of day energy is consumed. Manufacturers can strategically use this factor to their advantage by adjusting operating hours accordingly. They also can use electricity at optimal operating hours by avoiding “rate peak periods” which usually occur in the afternoon and early evening hours.

Employee Efforts

To make conservation efforts more successful, all employees must be on board with your plan. Emphasize the importance of reducing energy

consumption and encourage the following: turning off lights, machines, equipment, etc., when not in use. Getting the staff involved will also enable them to come up with their own strategies for reducing energy costs, fostering the idea of continuous improvement throughout a manufacturing facility.

By following these tips and focusing on the areas mentioned above, manufacturers can see significant savings on their next bills! ☺



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