

Client:

Nashville Wire Products

State:

Alabama

Zip:

36832

NAICS Code:

33599 – All Other Electrical Equipment and Component Manufacturing

Project/Event:

Operational Efficiency and Sustainability Student Internship Program, Summer 2014

Success Story Title:

ATAC ASSISTANCE SAVES AUBURN FIRM THOUSANDS IN REDUCED DOWNTIME

Company Profile:

Nashville Wire Products (previously Matrix Wire LLC) is a manufacturer of spring and wire products primarily for the refrigeration and HVAC industries. Nashville Wire Products is equipped to handle all types of metal fabrication using state-of-the-art manufacturing techniques such as: high speed CNC wire mesh welding; robotic mig welding; CNC wire forming; resistance welding; four-side forming equipment; hydraulic and mechanical punch presses; and other capabilities. The company has been in business in Auburn, Ala. since 2005. It employs 130 at the Auburn facility.

Situation:

Nashville Wire Products participated in ATN's Student Internship Program during summer 2014. This program was part of the Alabama Operational Efficiency and Sustainability Internship Program, sponsored by the Alabama Energy Assessment Center, Alabama Power Company and Alagasco. Participating students were assigned a project that involved an area of efficiency improvement, working under the guidance of ATN professional staff and participating company mentors.

Samrat Pandey, a third-term graduate Industrial & Systems Engineering student at Auburn University, served as Nashville Wire's intern for the project. Under the company mentorship of Production Manager Reese Stansell, Pandey was assigned to the company's newly acquired mesh welder machine. His assignment was to learn the machine and help in developing a preventive maintenance program, trouble-shooting procedure, and standardized set-up instructions.

"The focus was standardization," Pandey said. "The objective was to reduce equipment and production downtime and improve production and operational efficiency."

Assistance:

Pandey spent his first month learning the new machine.

"He was able to get really good with it," Stancell said. "He could set it up better than many of our more experienced employees and he got to know that machine extremely well."

During his internship, Pandey developed and documented a preventive maintenance plan for the new welder and other mesh wire welding machines; developed and documented a trouble-

shooting guide and standard procedure for trouble-shooting mesh wire welding machines; he also developed a standard spare parts inventory procedure and established spare parts stocking levels. “He really gave us the preventive maintenance procedures and spare parts inventory procedure that we will continue to use and modify from here on out,” Stancell said.

Results:

Nashville Wire Products credits Pandey’s internship project with achieving a \$99,960 reduction in equipment downtime on mesh wire welding machines. The project also is credited by the company for attaining a \$768,000 efficiency improvement in parts production. Pandey’s internship project netted a total impact for the company of \$867,960.

Testimonial:

“We were very impressed with Sam,” Stancell said. “He gave us our foundation for preventive maintenance on our mesh welding machines. Sam was much more diverse than we initially thought he would be. He was very hands-on and an extremely hard worker.”

Mike Diers, company president, added that they are interested in talking with Pandey about employment with the company upon his graduation.

NOTE: Pandey’s internship was one of four similar projects with Alabama manufacturing companies during the summer. Total impacts for the complete internship program are summarized as follows:

Company	Sustainability					Efficiency		
	Electricity	KWh	CO2 (lbs)	Nitrogen Dioxide (lbs)	Sulfur Dioxide (lbs)	Employee Downtime Reduction	Parts Production Increase	Avoidance of Engineering Fees
Briggs & Stratton Auburn	\$27,512	377,108	202,028					
Nashville Wire Auburn						\$99,960	\$768,000	
Omya #1 Intern	\$41,614	703,706	239,429	343	1,288			
#2 Intern Sylacauga						\$36,238		\$27,950
Sub-Totals	\$69,126	1,080,814	441,457	343	1,288	\$136,198	\$768,000	\$27,950
Future Savings Identified	\$29,658	275,466	312,981	468	1,716	\$67,869		
Grand Totals	\$98,784	1,356,280	754,438	811	3,004	\$204,067	\$768,000	\$27,950