



Unexpected Benefits

Lear cleans the air AND saves on utility costs with RoboVent.

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As the temperature falls during the bitter cold Michigan winters, the cost of heating a large manufacturing plant can rise dramatically. The Lear Corporation’s Roscommon Plant, located outside of Detroit, has been able to reduce winter heating costs significantly by cleaning and re-circulating heated air within the plant rather than exhausting it outside.

This is made possible because of the highly efficient air filtration systems installed in the plant over the past few years. Lear uses the RoboVent®, a self-contained air filtration system manufactured by RoboVent Product Group, that captures all impurities produced in the welding process, thoroughly cleans the air, and returns clean, conditioned air back into the plant. Unlike most air filtration systems - and the downdraft system previously used at the Roscommon Plant - climate controlled air is not removed from the plant in the filtration process.

With annual sales in excess of \$40 million, the Lear Corporation is a Tier-Two supplier to the automotive industry, manufacturing a

variety of parts all related to automobile seats. Lear manufactures seats for the Ford Explorer, Lincoln Aviator and the Mercury Mountaineer. They also manufacture seat frame backs for many Buick and Cadillac models.

The Lear Roscommon Plant has more than 275 employees and within recent years has seen a major increase in the amount of welding at the plant, according to Bob Fryzel, Welding Project Engineer. He said as welding increased, management saw the need to replace and upgrade the air filtration systems in the plant. Today, the Lear Roscommon Plant has 39 robotic welding cells.

"This plant had very little welding until the first robotic welding cells were installed in 2000," he said. "As the amount of welding increased it began to generate an enormous amount of smoke and fumes. Without smoke collection units, weld smoke would fill the plant in a short time, creating a very unpleasant work environment."

In the interest of employee health and safety, management decided to upgrade the plant's air filtration systems. Fryzel said Lear management took a very cautious and measured approach when evaluating air filtration systems. "We took the time to talk to people in the field, asked pointed questions about potential suppliers and made visits to a variety of welding plants to evaluate air filtration systems in operation." Lear Corporation Case Study

Fryzel said that Lear management evaluated and considered a number of



different air filtration systems before deciding on the RoboVent Self Contained Air Filtration System, manufactured by RoboVent Product Group of Clawson, MI. Fryzel said they decided on the RoboVent unit because of its "turnkey" approach and its ability to safely re-circulate climate controlled air. "The RoboVent fit seamlessly with our existing welding cells and required no downtime to install. It also saves floor space, requires very little ductwork and is easy to install, maintain and move when plant reconfigurations are needed," he said.

Lear also entered into a maintenance agreement with RoboVent to maintain the systems, taking the burden of cleaning and replacing filters off of Lear personnel.

Fryzel said air testing has been done in the plant multiple times since installation

of the RoboVent units and the results have always been well within the allowable limits set by OSHA.

Fryzel says employees have noticed the difference, which he believes positively affects productivity. "The employees who work in the robotic welding area of the plant appreciate the clean air generated by the air filtration units," he said. "Most welding operators have been working after a weekend shutdown when someone has forgotten to turn on the RoboVent units. The employees see first hand how much smoke is generated and they realize just how much better the filtration units make their work environment."

Fryzel said Lear management also noticed a difference. Utility costs in the traditionally costly winter months began to plummet as heated air was cleaned and re-circulated rather than expelled out of the plant.

"Looking back, I'd say the ability to clean and re-circulate the air and save on utility costs was the biggest – and somewhat unexpected – benefit of the new air filtration system," Fryzel said.

Jim Reid is vice president of RoboVent Product Group, a Clawson, MI based manufacturer of the RoboVent™ Self Contained Air Filtration System for robotic welding and other air filtration equipment. 1-866-ROBOVENT (762.6836).

