Growing A Business Through

CUSTOMER FOCUS

There's something compelling about a business success story rooted in humble beginnings. Such is the case with Relm West Labels. Mike McAuley began printing on a single small press in his backyard in Marysville, Washington in 1988. Today the business he started is arguably the most complete label and film packaging manufacturer on the West Coast. The company's 75,000 square foot production facility in Lakewood, Washington houses state-of-the-art digital imaging and flexographic printing equipment, but what continues to drive its growth is customer focus.

"Our team works to be ahead of the curve regarding what we can create for customers," according to Kert Brown, Facilities Manager for Relm West. "I've been here 12 years and when I first started we did pressure sensitive labels. Then we started doing more complex products like bottle wraps and multi-layer labels. Now we're moving into food-grade labeling and packaging, which will be a big focus for us going forward. Relm West emphasizes research, development and investment in new technologies so we can continue to expand our capabilities and create products our customers need."

Brown stresses that everything Relm West does is driven by customer need. Flexographic printing is a price-competitive industry, but this customer-centric approach has helped Relm West develop value-driven partnerships with customers across the country. Flexo printing is also a technology-intensive industry, and production equipment has to run at peak efficiency. One crucial production input at Relm West is compressed air.

"Every single piece of our production equipment uses compressed air," Brown says. "All of the printing presses deploy various mechanisms pneumatically. Ink hold-back is controlled with compressed air. Roll lifts, impression cylinders, drying systems, you name it – it's a show stopper if we don't have clean air. Compressed air is a constant that you come to take for granted until it's gone, and that was the point we had arrived at with our old equipment."

Brown realized that the potential for production stoppages had become too great. With the company moving into the manufacture of food-grade labeling, air quality issues were also becoming a concern. "There can't be any water or oil downstream," says Brown, "and that was becoming a big battle all the time with the old equipment. We were having service problems with the machines leaking oil, and it seemed like our service provider working at their convenience instead of ours and nickel and diming us with every service call."

WHAT IS FLEXO PRINTING?

Flexographic (“flexo”) printing uses flexible printing plates (typically made of rubber or plastic) to print on materials such as plastic, acetate film, foil and brown paper. A rotating cylinder transfers images from inked plates to the substrate. Sophisticated equipment and fast-drying inks combine to create a high-speed, high-quality printing process.

Some typical applications for flexo printing include packaging such as paper and plastic bags, milk cartons, disposable cups, and candy bar wrappers; imprinted paper products such as envelopes, labels and newspapers; and continuous pattern products such as gift wrap and wall paper.

The existing equipment included two oil-flooded compressors, one 25 hp and the other 30 hp. Each machine had minimal output controls, one simple online/offline and the other modulation. Since air demand at Relm West can vary considerably according to the project, the lack of precise output control was resulting in inefficient air production.

"I knew that new business opportunities were increasing the demand for high quality compressed air. On top of that, Relm West is continually looking for ways to reduce energy consumption. There was a lot to think about."

Brown decided to determine exactly how much air was being produced and where it was being used. He contacted Evan Stanley from Atlas Copco, who performed an MBox data log of the existing equipment around the clock for a week. Analysis of the data revealed a number of opportunities to improve production efficiency and air quality while also reducing electrical consumption. Notably, substantial energy savings could be achieved with an air compressor that adjusts the production of compressed air in real time to match the demand.

An additional source of energy savings was identified: the air distribution system. "Our plant has been plumbed in many different methods," Brown explains. "Bits and pieces had been added over time. It looked like pipe spaghetti. Various lines were inadequate for the equipment on the floor. The air system test revealed that our compressors had to produce air at 110 PSI just to get 80 PSI at the point of use 100 feet away. That's a huge pressure drop. We were making more air then we really needed and paying for that waste."

With data in hand and a solid understanding of Relm West's production requirements, Stanley proposed an Atlas Copco GA55VSD Full Feature compressor with an integrated refrigerated dryer, an oil/water separator, inline PD and DD filtration, and a 1,500 gallon storage tank. At the same time, John Kuipers, Service

Sales Manager for Atlas Copco in Northwest Washington, proposed replacing the existing air distribution network with AIRnet modular piping.

As part of the proposal, Stanley and Kuipers were able to lock in a rebate from the local power supplier, Bonneville Power. Because of the level of energy savings that could be achieved, Bonneville Power agreed to pay 63% of the project's installed cost. This included the AIRnet piping because the dramatic reduction in pressure drop would result in reduced energy consumption. "With the combination of energy savings as determined by the analysis of Relm West's actual air usage and the power supplier's rebate, we'd be crazy not to do the upgrade project," says Brown.

One immediate improvement with the new system was a reduction in noise levels. "The old compressors were so loud we had to initiate a hearing conservation program," Brown explains. "There was a dedicated compressor room and the highest dB levels in our plant were in that room. Noise is much less of an issue now, way less."

Brown points out that the new compressor was located in the existing compressor room since Relm West already had a dedicated space for that purpose, but the footprint for the new installation was decreased drastically. "The old system had two compressors, two tanks and two standalone dryers," he explains. "The new system occupies only about half the square footage as before so a lot of floor space has been freed up."

As a facilities manager who must address continually changing customer needs, Brown says he especially likes AIRnet piping. "It's easy to install and versatile," he says. "I can add pneumatic equipment wherever it's needed without having to be a solder-certified pipe sweater. If you can turn a bolt, you can put an AIRnet pipe whatever you want, anywhere in the plant. We installed a continuous loop around the plant, like a halo, and put in 50 to 60 drops off the halo to use at whatever point requires air. The header pipe is 2.5" and so, with 1,000 feet of pipe, the network itself provides quite of bit of compressed air storage to supplement the 1,500 gallon receiver tank. And the blue pipes look really high tech up in the rafters."

The new compressed air system features advanced filtration and oil/water separation. This allows Relm West to maintain a high standard of compressed air quality, address waste easily and help to keep the installation clean. "We installed an Atlas Copco oil/water separator so we don't have to reclaim oil or send out contaminated water for disposal."

John Kuipers was also brought in to provide comprehensive equipment maintenance coverage for Relm West. "The management team understood the importance of evaluating a capital project from a total life cycle cost perspective," Kuipers explains. "When he proposed the idea of one fixed cost to cover the new compressed air system's maintenance and service requirements, upper management really liked the idea."

RELM WEST Q&A

Commitment: Why did you decide to upgrade your compressed air system?

Kert Brown: We were experiencing too much downtime with our old equipment and vendors, and when there's no air there's no production. Our business is growing, too, so we were looking to produce more air with higher quality and energy efficiency.

Commitment: What special challenges does Relm West face with the manufacture of food-grade labeling?

Kert Brown: Clean air is critical. There can't be any water or oil downstream, and that was a big battle all the time for us with the old equipment. Now oil/water separation is the caliber we require and our air quality is excellent.

Commitment: Why did you go with Atlas Copco?

Kert Brown: We chose Atlas Copco for the reliability of the compressor, the versatility of the AIRnet system, the quality of their service and a lower total cost of ownership.

Kuipers points out another advantage of new compressed air technology: longer service intervals. "On the old equipment, the service interval was every 1,000 hours. With the new Atlas Copco equipment, it's every 4,000 hours or once year, whichever comes first. Our technician arrives with an Atlas Copco diesel-powered tow-behind compressor and connects it to Relm West's air system before he begins servicing their machines. That way there's no downtime while the stationary compressor is being serviced."

"Since we've gotten our new Atlas Copco equipment," Brown says, "we haven't had to mess with anything. In fact, I got a 5-year Total Responsibility plan because I didn't want to worry about maintenance or service. I wanted it covered, period. Now we pay one fixed price for Atlas Copco to maintain our compressed air equipment 100% and it's all covered. The compressor, the oil/water separator, the AIRnet piping, it's all on the service agreement too. One and done."

With the upgraded system in place for about a year, Brown reports his expectations continue to be met and often exceeded. "We haven't had any breakdowns at all. It's quiet. I've got air at any location in the plant with almost zero pressure drop. There are no leaks and everything looks great. Really, I couldn't be happier. You're making me look good!"

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