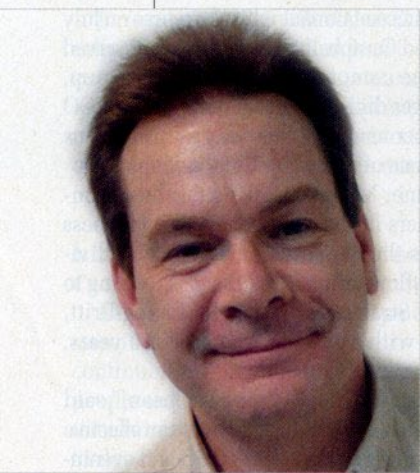


Sustainable from Start to Finish

Anomatic strives to make the aluminum anodizing process a shining example of green manufacturing.

Mark Ormiston looks at cell phones, iPods, beverage bottles, cookware and cosmetics in a different light than most of us do. Ormiston, the director of environmental sustainability for Newark, Ohio-based Anomatic Corp., sees these items as opportunities for green manufacturing—and is leading his company's efforts to make that vision a reality. ¶ Anomatic makes anodized aluminum packaging, which is found in a variety of consumer, medical and industrial products. Through the anodizing process, an oxide coating is formed on aluminum, giving it a corrosive-resistant, decorative finish and other properties. The company, which has 750 employees worldwide, says it anodizes more than 1 billion aluminum parts each year.



Mark Ormiston

"Aluminum really wouldn't have the penetration in our daily lives if not for anodizing," says Ormiston. "It's such a soft metal, it's easily scratched and it doesn't look very nice in its native state."

The "Green Finish"

Anodized aluminum is 100% recyclable. With customers increasingly demanding greener products and manufacturing practices, Anomatic plays that to its advantage, emphasizing in its marketing that anodized aluminum is known

as the "green finish" in the packaging industry.

But the company takes that several steps further, declaring that its goal is to be "the most sustainable anodized aluminum packaging company in the world." From talking with Ormiston, it's clear that the company's philosophy—that "manufacturing at the expense of the environment is not acceptable"—is more than just a business strategy.

"[Sustainability is] really a global responsibility, and it's all-encompassing," Ormiston says. "In our particular market, we have to have the consumers and the corporate community and the government all working toward the same goal, or we're not going to get much done."

This past June, Ormiston created the company's Sustainability and Environmental Operations Group. The cross-functional team is tasked with implementing Anomatic's sustainability plan, which aims to "reduce energy, waste, water and air pollution while significantly increasing the

ability to recycle and reuse materials," according to the company. The group's mission includes helping suppliers and customers develop recycling strategies for anodized aluminum, Ormiston notes.

Sustainability Targets

Anomatic has been working toward targets in each area of its sustainability plan through investments in new equipment and practices, such as air-scrubber technology that removes more than 98% of nitrogen oxides (a byproduct of the polishing process) and an advanced recycling system that enables the company to

recycle and reuse up to 40% of its process water. Through R&D and collaboration with one of its major suppliers, Anomatic in 2009 introduced a new aluminum alloy called 9030, which is guaranteed to contain a minimum of 20% postconsumer recycled content.

One of Anomatic's biggest green breakthroughs, Ormiston says, is its closed-cycle vapor degreasing system. Implemented in late 2009, the system uses a non-ozone-depleting hydrofluorocarbon fluid to clean stamping oil from the components prior to anodizing. Because the fluid is far more environmentally friendly than past-generation cleaning solvents, Anomatic is able to extract, filter and reuse up to 90% of the oil. Since the solvent is constantly being regenerated in a closed cycle, the new system uses about 90% less energy than the previous water-based cleaning process.

While the company has made strides in achieving its sustainability objectives, Ormiston says the biggest challenge will be to keep the momentum going—and that falls on his group's shoulders. The group will have some powerful tools at its disposal. Anomatic has been incorporating sustainability goals into kaizen events, 5S and other continuous-improvement activities since it began its lean journey about two years ago, Ormiston notes; utilizing lean principles is part of the group's charter.

"If [sustainability is] part of the continuous-improvement process and if we're using the same principles, a lot of times when people think continuous improvement, they think about sustainability at the same time," he says. "Had we not operated with lean principles, if we had a different methodology to how we went about attacking problems, you might have somebody say, 'Am I supposed to do it the lean way or am I supposed to do it the sustainable way?' Really there's only one way. So I think it makes it a little simpler for everybody to work."