Ralco Industries' Next-Generation Approach to ERP in Automotive Manufacturing

Operating since 1970, Auburn Hills-based Ralco Industries, Inc. (Ralco) is a tier 2 automotive supplier. The company engages in design, prototyping, production, and the distribution of high-tolerance metal stampings and welded assemblies. Setting the precedent for product and process quality in the industry, Ralco has achieved a defect rate of less than one parts-per-million (PPM) for the last eight years in a row. For a company that turns its inventory more than 250 times per year, this requires continuous innovation backed by continuous improvement in the people, process, and technology resources used to support operations.

This case study dives into Ralco's journey toward superior quality by making quality the centerpiece of its operation, and how the deployment of next-generation cloud ERP technology has helped it accelerate progress on that journey.

Selecting the Right Solution to Support Ralco's Quality-Centric Culture

Quality has been at the core of Ralco's products and processes since its inception. In fact, the company's management has made it a priority for decades to foster a culture of quality and provide personnel with the resources needed to drive improvements in this area. 45 years ago, these resources were significantly different than the types of resources available today. Over the past several decades, however, Ralco has committed considerable time and capital to maturing its process capabilities. And at the turn of the century, it began evaluating next-generation ERP solutions to bring its people and processes to a new level of operating.

When it came to looking for a next-generation ERP solution, finding one that would support and even enable this culture of quality was a top-of-mind objective for CEO Tom Gitter. As he explained, "Humans don't make good quality products, processes do. But you need a capable set of people with a capable system to back those processes up. We wanted a solution that would help an operator or leader become more responsible for the quality and success of processes, by giving him or her authority to do what was necessary to improve or tweak processes as needed."

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In 2001, Ralco chose the Plex Manufacturing Cloud to be that solution. Gitter explained that Ralco's management knew it was taking a very progressive approach to its ERP implementation at that point. In a time where very few companies were even considering the cloud, Ralco saw it as an opportunity to stay a step ahead of competition. He said, "Plex Systems was in the cloud before there even was a so-called 'cloud.' We recognized that during the solution selection process and thought it was the future—not managing our own hardware, servers, and receiving system updates and upgrades as needed. I don't know how so many companies are still using IT in the traditional way."

Taking Ralco's Operation to the Cloud

Since initiating its cloud ERP deployment back in 2001, the tier 2 automotive supplier has implemented every module of the Plex Systems solution that applies to its operation. Outside of Plex Systems, the only other internal IT system in use is a CAD solution. Ralco is currently using the system for nearly all aspects of operations, from sales to purchasing, inventory, production, HR, training, reporting, customer complaints, and more. Additionally, in recent years Ralco has been working toward the development of a "smart" manufacturing environment, integrating all of its equipment and machinery with the Plex Systems solution.

Although there are many different capabilities within the solution, Gitter highlighted the effectiveness of the integrated platform as a whole. According to him, the solution's holistic nature provides superior control over operations. Notable highlights of this approach include the assurance that operators have satisfied particular training requirements before using a piece of equipment, ensuring serialized traceability for every coil of steel and material used during production of a lot, minute-by-minute performance indicators streamlined directly to role-based dashboards, and even the ability to remotely interact with equipment.

He said, "If I see a potential change coming, I can now execute an engineering change order on my smartphone while on a business trip in Europe." Gitter acknowledged that these types of year-over-year advancements to the system have been crucial to maintaining Ralco's high level of quality and keeping customers satisfied. He continued, "The best thing about our cloud ERP is it's a living, breathing animal. It's running all of the time and has only gotten better."

Validating Ralco's Migration Into the Cloud

Ralco has matured its capabilities over the past thirteen years, alongside the maturity of Plex Systems' product. Today, the entire business is integrated with Plex Systems from the enterprise level all the way down to its robotic welders and electronic interfaces used by operators on the shop floor. According to Gitter, this tight integration—specifically on the shop floor—has been the cornerstone of

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Ralco's excellence in quality management. The system streamlines alerts to appropriate roles if any type of corrective action is required and that has driven both a proactive approach to quality and a culture of continuous improvement over the years.

Gitter said, "The fact of the matter is, if you have a human checking for and managing all of these potential quality non-conformances, you will get less than perfect results. By fully integrating our shop floor with our cloud ERP, the end result has been phenomenal. In the last eight years, we've averaged less than one defective PPM. Given that we turn inventory more than 250 times per year—more than once per day on average—we wouldn't be able to do all of these quality checks to get down to one defective PPM with just humans."

Additionally, coupling this integration with the digitization of data and records has driven unprecedented visibility into Ralco's operations, which has directly helped its customer success team and specifically driven follow-on business. Gitter shared one example of an in-person meeting with a tractor trailer engine client that requested quality data on root causes and failure modes based on a three-year period. Gitter's team was able to generate the report while sitting at the same table with the client. Prior to the meeting, the customer was holding the supplier responsible for a particular non-conformance, however, the data revealed the issue was not a non-conformance but an inadequate engineering specification initially provided by the customer. Uncovering the root-cause this way demonstrated control and diffused any blame-derived emotion.

As explained by Gitter, "The system provides instant credibility to our company and our products once our clients and prospective clients understand what it can do. It's huge from a marketing perspective, but it's proven invaluable from an operational perspective."

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LNS Research's Analysis

Ralco displays an impressive commitment to its vision, with its management's continuous efforts to drive a culture of quality and provide personnel with the resources needed to be more effective. Like many forward-thinking leaders, Gitter understands that technology can compound the impact that engaged employees and well thought-out and refined processes can make on quality. He said, "If you're going to meet customer expectations, you're either going to need a whole lot of people who are watching over other people, or you're going to need a strong electronic system," and this statement has never been more true today. Ralco clearly demonstrates that its holistic and comprehensive system deployment frees up personnel to focus more on adding value than expensive and error-prone manual quality checks.

Although Ralco has been on the cutting edge of supporting its culture and

processes with technology adoption for more than a decade—moving to the cloud in 2001—it is important to note that the journey is not over. The cloud has undoubtedly paid dividends to the company's performance, but continuing to stay ahead of the curve requires continual innovation. Ralco will have to rise to the challenge, further connecting machines and sensors to the system for even faster decision-making and more control. Gitter also mentioned recent efforts by the manufacturing organization to move into an additional but entirely different type of medical product business—one that produces high-tech power-assisted wheelchairs—which will make decision support and control even more important in the near future.

IT decision-makers and leaders in discrete manufacturing can take away several key points from Ralco's experience:

- Technology is an enabler of better performance, but it requires action. With many companies deploying next-generation ERP and quality functionality available today, the longer companies wait to start taking advantage of these solutions, the further behind they are falling in comparison to competitors.

- Fostering a culture of quality is key. Processes and technology are virtually worthless without a dedicated and engaged culture to oversee them. Even in a fully-automated environment, process improvements require human commitment, oversight, and interaction.

- Like Gitter said, cloud technology is a "living, breathing animal." This is especially the case for multi-tenant solutions such as the Plex Manufacturing Cloud. Adopting such a solution can enable companies to better keep pace with technology innovation as it is routinely rolled out to subscribers.

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