

RUN BETTER. MANAGE SMARTER.®

At Raymond, our aim is to deliver the utmost quality and to work for continuous improvement every day, in every aspect of our business. We are proud of what we build. We are proud of the level of service we provide to keep our customers' business up and running. We take pride in our commitment to our customers through our end-to-end approach in helping them find smarter, more efficient and more effective solutions.

We value the trust that Raymond has earned through decades of proven performance and hands-on innovation. Since the patenting of the first hand-pallet truck to the invention of the reach truck to our pioneering work in narrow aisle operations and beyond, Raymond has led the way in providing customers with the tools and expertise to improve their business.

IF YOU'RE LOOKING FOR A PARTNER WITH THE TOOLS AND EXPERIENCE TO HELP YOU RUN BETTER AND MANAGE SMARTER, LET'S TALK.

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Printed in USA
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INSTILLING A CULTURE OF CONTINUOUS IMPROVEMENT WITH LEAN MANAGEMENT PRINCIPLES

RAYMOND
LEAN MANAGEMENT

THE RAYMOND CORPORATION
GREENE, NEW YORK

RAYMOND
LEAN MANAGEMENT

Based on the TPS concepts of Jidoka (defect-free) and Just-in-Time, RLM can effectively and efficiently produce processes of sound quality that fully satisfy customer demands.



In business, even small enhancements in productivity and efficiency can have a big impact on your bottom line. Whether it is through reduced lead times, reduced waste, minimized downtime or improved quality, operations are looking for any advantage at every turn.

The Raymond Corporation can help you achieve all of the above with its version of the Lean Management System. Raymond Lean Management (RLM) procedures and techniques are based on the world-renowned Toyota Production System (TPS), which focuses on waste reduction through visualization, standardized work, target-based key performance indicators (KPIs) and continuous improvement activities to provide the best possible solutions. When applied correctly, RLM can effectively and efficiently produce processes of sound quality that fully satisfy customer demands.

EMPOWERING YOUR WORKFORCE TO IDENTIFY AND SOLVE FOR WASTE

Lean management adds value to an organization by empowering employees to make improvements and take ownership of the tasks they accomplish on a daily basis. By teaching workers to spot inefficiencies, or potential errors in their work, lean management provides them with practical tools to share their ideas and develop impactful, long-term solutions. A key component of lean management is “kaizen” or “change for the better,” a strategy in which employees at all levels of a company work together proactively to achieve regular, incremental improvements. Employees throughout an organization are taught to identify wastes in their processes and come up with solutions to address those wastes by submitting improvement suggestions (kaizens) to management. If a kaizen is found to be successful, it will then be implemented throughout the operation. This opportunity to impact organizational change creates a more engaged employee culture, resulting in higher morale and workforce retention.

Collaboration between teams is a vital part of RLM’s cultural philosophy. Departments participate in daily meetings to review yesterday’s disruptions and errors and to give shoutouts to employees who are doing exceptional work. This helps stimulate a culture of continuous improvement throughout an organization.

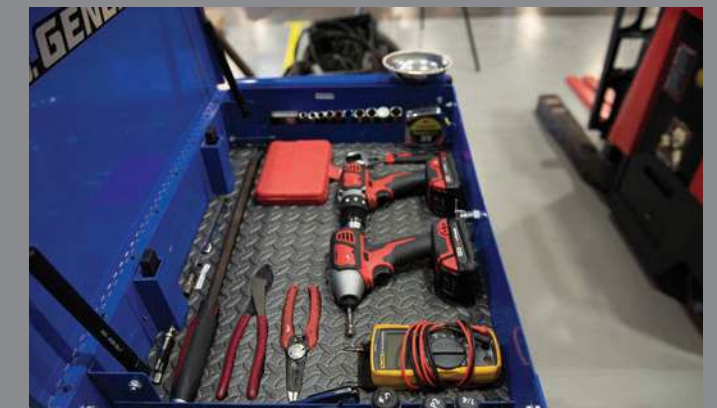
VISUALIZE IMPROVEMENTS

Lean management methods are based on the philosophies of reduced waste in pursuit of the most efficient methods. This process begins with visualization. Visualization aims to make a situation easily understood merely by looking at it. The goal is to obtain as much relevant information as possible as efficiently as possible. This can be accomplished throughout a facility by:

1. Telematics: collecting data to allow for lean-based problem-solving methods to address process abnormalities.
2. Data displays: putting data such as production rate, quality defects and machine status on display on the shop floor via graphs, charts or computer screens.
3. Markings: marking and labeling locations on the shop floor. Using different colors, you can mark where items are located and label the places so these items maintain a home location.

4. Tool displays and shadow boards: allowing employees to see immediately which tool or part goes where and which is missing.
5. Facility layouts: displaying where your material is, how much more work there is and other details on your process.

Visualization helps ensure operations act upon the concepts of continuous improvement, quickly recognize current conditions and stabilize a process.



Visualization and 5S practices on display at The Raymond Corporation’s Malin Solutions and Service Center in Addison, Texas.

EMBRACING STANDARDIZED PROCESSES

Standardization is the basis of continuous improvement. Once there is a standard in place, targets can be established and variances can drive continuous improvement activities toward target conditions. Much like visualization, standardization is a key philosophy of TPS and any successful lean culture.

An example of standardization is the 5S process, a system for organizing spaces so work can be performed efficiently, effectively and safely. This process focuses on putting everything where it belongs and keeping the workplace clean, which makes it easier for people to do their jobs.

The stages of 5S are:

1. Sort — Determine what needs to be present in each workstation and what can be removed.
2. Set in Order — Arrange remaining tools or materials in an order that creates the least waste.
3. Shine — Shine is about maintaining good cleaning practices, which means sweeping, mopping, dusting, wiping down surfaces, putting tools and materials away, etc.
4. Standardize — Systematize the first three steps to turn one-time efforts into habits.
5. Sustain — Maintain standardized procedures and update them as necessary.



Process optimization extends to six areas in warehouse, distribution and supply chain operations.

The final steps of “standardize” and “sustain” are perhaps the most crucial as an organization looks to instill long-term change in its culture. A key component in standardization is identifying waste by pinpointing the value-added and non-value-added steps of processes. Once this distinction is made, operations can begin to develop standardized work processes that create clearly defined customer expectations, leading to consistency of labor and materials. Through standardized processes, operations can eliminate waste, ensure processes are safe, identify root causes of defects and build in quality.

INSTILLING A CULTURE OF CONTINUOUS IMPROVEMENT

For any lean initiative to be sustainably effective, a culture of continuous improvement needs to be adopted throughout an organization. This includes top-level executives buying into lean philosophies and instilling creativity in their entire workforce to embrace their new roles and actively seek better solutions. This culture of continuous improvement can often extend beyond the warehouse floor and help identify wastes in other departments, including sales, marketing and human resources/training.

With the collective goal of reducing waste throughout the organization, lean management transforms a company's culture to focus on improved quality by constantly searching out optimization opportunities. An optimized material handling business creates more space for product, increases workforce productivity and leverages lift trucks and intralogistics solutions for the best suitable task. Ultimately, this will lead to cost savings that can be reinvested throughout the organization.

It is important to remember that RLM practices need to be continually monitored, analyzed and adjusted to ensure waste identification becomes ingrained in all aspects of the company's core business functions. This is the only way to achieve sustainable long-term business improvements.

THE RAYMOND ADVANTAGE

Continuous improvement is a core principle of Raymond. As a member of the Toyota Industries family, Raymond has studied and implemented TPS throughout its organization. By leveraging its own experiences with TPS, Raymond has expanded upon its teachings to offer RLM, a one-of-a-kind lean management system.

Lean management has played a pivotal role in Raymond's commitment to addressing customer challenges in the

supply chain and logistics industry with smart, leading-edge technology. As technology evolves, the advantages of using semi- and fully automated solutions to increase productivity and address the labor shortage are clear. But before getting too invested in the latest material handling trend, optimization based on operational data and lean management philosophies is a crucial step that must happen first.

RAYMOND'S EXPERIENCE WITH LEAN

Raymond's headquarters in Greene, New York, is a world-class manufacturer of material handling equipment. Since 2006, Raymond has focused significantly on integrating TPS principles into every aspect of its manufacturing process,

which has resulted in better-trained employees, as well as reduced processed disruptions. Raymond continues to focus efforts on training and standardizing work procedures. The company continues to develop dojos, or specialized training areas, to teach employees specific on-the-job skills. Through organized, employee-focused activities, Raymond works to recognize associates for their accomplishments and skill sets.

SUCCESS STORIES

MALIN SOLUTIONS AND SERVICE CENTER

Malin is an authorized Solutions and Service Center of The Raymond Corporation based in Addison, Texas. This Solutions and Service Center offers TPS education and lean management consulting to ensure customers get the most out of their current resources. Malin's Fort Worth facility serves as a shining example of the benefits RLM can have on an operation's people, procedures and plant. Since implementing RLM, Malin has been able to optimize its service bays by taking advantage of one-piece flow to improve quality and gain additional efficiencies through the work area. Furthermore, after implementing RLM, the Malin team discovered areas in the warehouse that were occupying more space than necessary. By reorganizing and optimizing these areas, Malin was able to open up new staging areas and transportation lanes. With the adoption of a lean culture and the utilization of standardized work and a solid 5S program, Malin has enhanced the efficiency of its equipment installation process.



Raymond Lean Management principles helped Malin's facility in Fort Worth, Texas, increase productivity throughout its operation.



Located in Dallas, Community Crossroads' optimized one-way shopping lane features 110-120 SKUs and eliminates the need for shoppers to backtrack for missed items.

CROSSROADS COMMUNITY SERVICES

Crossroads Community Services focuses its efforts on supporting and feeding those affected by economic and social hardships in the Dallas area. In 2019, Crossroads Community Services expanded its distribution center to 72,000 square feet and was looking for a way to streamline operations and make the most of its volunteers' time. The food bank was able to optimize its shopping experience by using RLM principles to create a one-way shopping lane with 110-120 SKUs. Shoppers work with volunteers to build customized shopping lists based on their families' nutritional and caloric needs. The lists also tell the shoppers exactly where their items are in the shopping path so there is no need to backtrack or search for items like in a normal grocery store.



This past year, we moved into a facility that allows for greater production. But without processes in place, more space will only help so much. RLM has helped in nearly all we do. Our pantry is driven in part by volunteers, and without good processes in place, our staff is tied up explaining details to an ever-changing volunteer workforce. The layout of the pantry and how our software connects to it has improved each interaction measurably. This is just one small example of a growing list of examples where Crossroads teams have implemented RLM, leading to increased services to an ever-increasing community in this great time of need."

— Abel Sanchez, Crossroads Community Services, Facilities and Technology Manager



POOLCORP's new tile assembly process eliminated strain on employees' hands and backs while resulting in a 91% increase in throughput.

POOLCORP

POOLCORP is the world's leading wholesale distributor of swimming pool equipment, parts and supplies. The company creates tile samples by hand at 3 of its 5 distribution centers: Flower Mound, Texas; Jacksonville, Florida; and San Bernardino, California. The old work standard required associates to squeeze large glue bottles and pick tiles off the floor. POOLCORP turned to Malin to improve the tile sample assembly ergonomics and, in the process, increase production throughput and reduce assembly labor cost. Based on associated-submitted kaizens, Malin was able to devise a new work standard that uses a foot-actuated hot melt machine to eliminate hand strain caused by the glue bottle. The new process also eliminates the need for associates to walk to curing stations and enhances workplace ergonomics by raising work order tiles to working height, eliminating the need for associates to pick up off the floor. These new work standards resulted in a 91% increase in throughput, a 45% reduction in labor cost and a 30% reduction in space utilization by creating only one production line rather than using four separate workstations.

CONCLUSION

IDENTIFYING INEFFICIENCIES THROUGH DATA-DRIVEN INSIGHTS

Optimization is a continuous, ongoing process. There will always be opportunities for improvement in your operation, so it is vital to consistently evaluate and analyze your business, people, processes and plant. Ongoing monitoring and analysis of data will provide a road map to achieve maximum operating efficiencies now and into the future.

CHARTING A PATH FORWARD

Raymond has the expertise and knowledge to help you identify the current areas of waste in your operation and educate your workforce. Contact us today for a free consultation that will help you better understand your current operations and how it can be enhanced to achieve greater operational efficiencies and keep your operation competitive and profitable.

Contact us at: <https://www.raymondcorp.com/optimization/lean-management>