Lean Warehousing – From Paradox to Operational Excellence

A conversation and exclusive interview with Tonya Vinas, B2B writer and editor, and Robert Martichenko, CEO, LeanCor Supply Chain Group.
Tonya: Good morning Robert. Before we start talking about Lean Warehousing, can you tell us a little bit about LeanCor Supply Chain Group?

Robert: Good morning Tonya, nice to talk with you again. Sure, LeanCor is a trusted supply chain partner that delivers operational improvement and measurable financial results. As a third-party logistics provider, LeanCor offers a unique combination of third-party logistics services, hands-on consulting, and training and education that helps organizations eliminate waste, drive down costs, and instill a problem-solving culture across their supply chains. LeanCor is committed to continuous improvement and fully recognizes performance is measured by real results. In our own operation, LeanCor relentlessly tries to optimize those processes that add value and eliminate those that are wasteful. We capture our own learning and present it as thought leadership to our clients and the at-large logistics community.

Tonya: This seems to be a unique model for a Third-Party Logistics Provider—to provide training, consulting, and operations?

Robert: Yes, it really is, but it’s necessary for LeanCor to successfully drive our value proposition. We want to help our customers succeed in their quest for lean and operational excellence. This means we need to focus on people, processes, and actual operations. That’s why we offer training for the people element, consulting for the process focus, and actually run operations for our customers that need to focus on their own core competencies.

Tonya: Thanks Robert. Relative to our topic today, Lean Warehousing, is it a big part of your operations?

Robert: Yes it is, about 50 percent of LeanCor team members are working inside logistics facilities that our customers have outsourced to us. This has allowed us to practice what we preach regarding lean warehousing and has also allowed us to know all too well the challenges and opportunities therein. What we know for sure is that lean warehousing, just by the nature of the term itself, can be a paradox at best.

Tonya: That’s interesting, what do you mean by a “paradox at best”?

Robert: I suspect many people think the term “lean warehousing” is an oxymoron. Let’s face it, most lean purists believe that all transportation and warehousing functions are pure waste. Considering my entire career has been in logistics, I become a little defensive at this notion. Many organizations see logistics functions as a way to gain competitive advantage and bring value to the customer. The fact is, particularly with the growth of the global supply chain and extended lead times, warehousing is necessary and plays a critical role in the entire supply chain. The use of facilities for inbound material logistics and outbound finished goods distribution are the bridges that connect all the imbalances and lack of flow in the entire stream.
Tonya: You mention “imbalances and lack of flow.” What do you mean by this?

Robert: These are the reasons we need warehousing in the first place. In a perfect world, when we receive an order from our customer, we order what we need from our suppliers, build the product, and ship it to the customer. We would complete this all within a lead time that pleases the customer. In other words, our entire supply chain is faster than our customer expectations. Unfortunately, very few companies live in this world. Most of us are slower than our customers, which creates the need to guess, or forecast, what we might need. This results in possibly pre-ordering raw materials from suppliers and pre-building finished goods. We have to store goods that we simply don’t need yet—hence the necessity for warehousing.

Tonya: Is being slower than your customer the only reason why warehouses are required?

Robert: Unfortunately, no. I wish that were true, and then our work could focus solely on lead-time reduction. Business dynamics and organizational behaviors play a big part in the need for warehousing. Some of the usual suspects are customer service and fill rate policies, production lot sizes, transportation economies, purchasing economies and hedging, supplier dependability, demand seasonality, and demand variability. It’s a large list, but the good news is we can fight against many of these dynamics by focusing on lean principles relative to the overall supply chain and warehousing.

Tonya: That’s a great segue to my next question. Considering the term “lean warehousing” seems contradictory, how do lean and warehousing come together?

Robert: To answer that question we really need to look at the term lean warehousing from two vantage points, or two cases. In case No. 1, or strategic lean warehousing, we focus on how our lean warehousing strategy fits into the overall supply-chain strategy. In strategic warehousing, we recognize the supply chain is an overall system, with many moving parts. Warehousing plays a key role in that system; there is no assumption we need the warehouse, and we look for ways to minimize the need for storage of product all together. The second vantage point is case No. 2, or tactical lean warehousing. In this case, we focus inside the four walls of the warehouse and ask, “How can lean principles and tools help us to run a more efficient warehouse?” Here we have made the assumption we need the warehouse and therefore want it to run as effectively and efficiently as possible.
Tonya: Looking at lean warehousing case No. 1, or “strategic lean warehousing,” what are the main things supply-chain professionals should focus on?

Robert: Strategic lean warehousing is where we are really being systems thinkers. It all starts with our inventory strategy, and I can’t stress this enough. All logistics strategies, including transportation and warehousing, begin and end with inventory strategy.

And let’s not overcomplicate inventory strategy. All we need to ask ourselves is what we are going to make and sell, what customer service goals we have, where we need to have strategic stocks, how much we will have, and how we will replenish it. We call this a PFEP or “Plan for Every Product.” It is essentially the inventory and flow design for each product, or SKU, in your portfolio. Once you have your PFEP in place, you can then develop your transportation and warehousing strategy to accomplish the PFEP. This is critical as we must design the overall logistics network to support flow and velocity.

Tonya: That brings us to case No. 2, or “tactical lean warehousing.” What are the main focus areas here?

Robert: Tactical lean warehousing is where we look at lean warehousing relative to inside the four walls. This means, “How are we going to use lean principles to create more efficient warehousing operations?” The good news here is that lean principles apply directly to warehousing operations. The first is safety. Key lean principles such as respect for people, the organized workplace (meaning 5S), and visual management all work to create a safe workplace. Another key principle that effectively applies is standardization. This includes standardization of processes such as standard work, as well as standardization of products such as isolating and eliminating the cost of SKU complexity.

The next principle is quality at the source. With this principle we engage in isolating key failure modes (or areas of defects), and we work to error proof processes to prevent defects from happening. This can also include the development of a quality dashboard from which to monitor performance. Lastly, we focus on the principle of flow—from flow of material and facility layout to flow of information and inventory accuracy.
Tonya: So assuming a company does require warehousing, how can lean thinking help?

Robert: From a lean perspective, the warehouse has to facilitate flow for the entire supply chain. This means that the goal of the warehouse is to receive product in and ship product out as quickly as possible, creating velocity and speed in the supply chain.

We should be focused more on cross-docking and sequencing initiatives than on pure storage strategies. The key is that the warehouse and functions inside the warehouse are connected to the inbound and outbound supply chain processes of the organization. We need to be focused on flow and speed as opposed to storage and stop-and-go strategies.

Tonya: Is there a specific toolkit or approach that you use when implementing the lean warehouse on behalf of your customers?

Robert: Specifically from a lean tool point of view, we focus on creating visibility to demand, and connecting the processes in the warehouse to that rhythm of customer demand. This is where we use the concept of “takt time,” used traditionally in manufacturing plants. In this case we are using the essence of takt inside the warehouse as well. In fact, we know that if you have determined process time and you know the takt time for that process, we can determine the number of resources required—including people and equipment. This approach is counter to traditional engineering standards developed in many warehouse operations that focus on stopwatch-type of applications.

Secondly, we focus on standard work, starting with leaders and extending to each team member. Where many organizations focus on engineering standards, we focus on standard work in order to create a baseline from which to improve. Lastly, we focus on quality at the source and error-proofing processes. What I mean is that we need to develop processes where team members can get it right easier than they can get it wrong.
It’s our job as leaders to provide team members an environment where they can be safe and succeed in their roles. Standard work and quality-at-the-source go a long way to accomplish these things.

Tonya: It sounds as if a big part of this is about leadership. What would you say is the most important thing a leader needs to do to drive lean in the warehouse?

Robert: The most important thing is to spend time on the floor and engage in active problem solving with all team members in the operation. Operational activities in warehouses tend to be hour-by-hour and at most day-to-day. Therefore, problem solving needs to be in real time. A leader can be most effective by being present on the floor and engaged where the work is being done.

Second, leaders need to be committed to developing people. For example, at LeanCor facilities, LeanCor Academy was implemented to train and develop our team members. We are developing an entire team of lean problem solvers who are trained and focused on optimizing those processes that add value and eliminating those that do not. Team members gain on-the-job training as well as career development with training in lean, six sigma, logistics, supply chain, leadership, and management skills.

Tonya: That’s a big investment in people. Do you feel there is a return on this investment?

Robert: Let’s face it, calculating ROI on training can be difficult to articulate. But in our case I can measurably show that our internal training has produced results in cost reduction, speed, and quality improvements. For example, at one of our facilities, we can graphically show defects per million opportunities trending down significantly month-by-month after our team member training activities began. Since its inception, the LeanCor Academy has transformed our warehouses into an operation that lives and breathes continuous improvement. Team members have gained more than just job training. They’ve become lean leaders who truly exemplify “walking the walk” at the gemba. The business investment in time, effort, and resources to build future lean leaders has yielded major returns from improvement initiatives and elevated customer service.
By investing in our number one asset, our people, we’re building a strong foundation for the future. Now, we are not perfect, and have long way to go. But we have come a long way.

Tonya: You mention you still have a long way to go. What are some challenges you know people will face while implementing the lean warehouse?

Robert: As I mentioned before, warehouse strategy has to be integrated into the entire supply chain. Leaders inside the warehouse need be knowledgeable about inbound flow and outbound demand that the warehouse is supporting. In the absence of this visibility, warehouse operators will simply be reacting to day-to-day activities. As we know, when we are highly reactive, we cannot focus on flow and waste elimination. The second challenge is to engage all team members in the warehouse in problem solving. At the end of the day, problems can be identified and solved only by those doing the work. Therefore, we must engage the entire workforce to identify problems and solve them at their root causes. In the end, this is the essence of the lean culture.

Tonya: What about results? What should people expect if they do the hard work that is required to drive excellence in warehouse functions?

Robert: The great thing is that lean warehousing produces tangible and measurable results. Unlike other areas of our lean work, in the warehouse you can really get your hands around the results. These include labor productivity, equipment and space utilization, and inventory reduction. Also unlike other aspects of the supply chain, these activities can be measured accurately. We can have accurate baselines from which to measure improvement. Therefore, waste reduction and corresponding productivity, and cost reduction will be visible and tangible.

Additionally, by focusing on quality-at-the-source, we will reduce the number of defects to the end customer. This results in increased fill rates and a corresponding increase in revenues. It’s the proverbial “win–win” situation of cost reduction and increased revenues.

Tonya: Your company, LeanCor, is a third-party logistics provider. Do you feel organizations are better off outsourcing warehousing operations?

Robert: I’m not sure there’s an easy answer to that question. I know a lot of companies that perform their own warehousing and are extremely successful operators. However, some organizations are better served by focusing on their core competencies and allowing warehousing functions to be performed by third parties that focus on these processes as their core competencies. Certainly, a value of working with a third party is that you leverage the fact that the third party continually works on techniques to improve the warehouse function. Advice I often give people is not to outsource your warehouse simply because you think it will be cheaper. The decision to outsource needs to be strategic in nature. Ask yourself, “How will this third-party provider make my company stronger?” In the event you choose a third-party provider, the culture of that third party should integrate with your business culture. Go visit their facilities and take time to examine the culture relative to safety and problem solving.
Tonya: Well, thank you for your time today. Is there anything you would like readers to know that we have not discussed?

Robert: Thank you, Tonya, for your time as well. As a closing comment, I don’t believe warehousing is a commodity. It should not be considered simply as a cost of doing business. It should be considered a highly strategic element of your supply-chain vision and strategy. By connecting your warehousing strategy to your supply-chain vision, the results should be focused on flow, speed, and overall waste elimination. Lastly, I strongly believe lean principles and lean thinking have their place inside the warehouse. Through the application of lean, a warehouse operation can gain significant improvements in productivity and overall performance.

I believe this because I see it at work every day.

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For more information about what LeanCor can do for your warehouse, contact us:

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