Enter Lean Manufacturing

Lean manufacturing is all about creating more value by improving flow. The best way to improve flow is to remove process waste. What are process wastes and how do they inhibit flow? I like things simple, so think of the eight process wastes using the mnemonic DOWNTIME:

D External: Defects result in rework. We know that when we have to rework a job, it clogs up the system, preventing other work from being produced.

O Overproduction: Making more than what is needed. It’s that 10% automatic overage to account for losses downstream. When we reduce the amount of overage required, we free up valuable machine time. Overproduction can also result in making more than the downstream can handle. Look for overproduction by looking around for piles. Print more than the bindery can handle and end up with piles of stuff just sitting around. Piles are rocks.

W Waiting: When product is waiting to be worked on or when people are waiting for work to do, that’s waiting waste. Waiting waste can be one of the biggest inhibitors of flow. Observe for an hour and record every time something or someone is waiting. You’ll likely be surprised by how many of these slow flows you find.

T Transportation: Transportation waste is excessively moving stuff or people from one place to another. Think about the transportation of materials across the plant. Whether we’re using forklifts, pallet jacks, or our own two hands and feet, taking time out of production for transportation means less time for work to flow through the system. We’ve slowed our own current.

I Inventory: Inventory waste can be raw material inventory, work in progress, or finished goods. When we have large amounts of raw materials or finished goods staged around the plant, we have to spend a lot more energy and time managing it and moving it. We’ve all seen work in progress get stuck in our system when the downstream wasn’t ready for it. More managing, more moving, and more risk of damaged product are required to handle these rocks we’ve created for ourselves.

M Motion: When we reach, bend down, turn, twist, or search for things we can’t find, that’s motion waste. So often it seems inconsequential—just seconds at a time. But those seconds often add up to hours over the course of a week. Look around again to find where you’re losing seconds. Tiny rocks can add up to large problems.

E Excess Processing: This is using more steps than absolutely, minimally required. Those extra clicks on the computer screen, extra sign-offs, and extra steps to jury-rig machines. That’s excess processing waste. More rocks.

The key to improving flow in our print operations is to find and remove the rocks that are getting in our way. When we see them, we improve the process to remove the rocks. When we can’t see them, we use Lean tools to get just beneath the surface, expose them, and remove them.
Integrate Lean Thinking into Culture

Lean manufacturing gives you more than just the tools to systematically improve flow; it also gives you the leadership beliefs and behaviors that make it part of your culture. Removing rocks to improve flow is a great first step. However, the key to making it last is that it requires leadership changes to transform the culture. It takes work, but it’s worth it.

Desert Paper & Envelope Company has worked to integrate Lean thinking into their culture. CEO Ella Leeper describes the impact: “The culture shift we’ve had while on our Lean journey is immeasurable. Our team members are engaged in identifying constraints that could impact throughput and understand only they can improve the process at the work site. The increased knowledge and awareness regarding on-time delivery both internally and to the customer has helped us achieve a delivery KPI that is best in class.”

Take the Next Step

Whether you’re just starting out with Lean manufacturing or you’re looking to expand from tool implementation to cultural transformation, the PIA Continuous Improvement Conference is for you.

Consider these pre-conference workshops:

- If you’re just starting out, be sure to join John Compton for Lean 101.
- If you’re ready to tackle leadership behaviors and systems, consider the Leader Standard Work and Theory of Constraints workshop with Russ Aikman and Brandon Phoenix.
- If you’re ready to get serious about culture transformation and want to move from being the primary problem solver to a problem-solving coach, check out my workshop: Developing and Coaching a Team of Frontline Problem Solvers.

ABOUT THE AUTHOR

Jamie has served in operations management roles for 17 years, including six years practicing Lean and leadership development for FedEx Office. She knows firsthand the challenges, opportunities, and possibilities print organizations face. Today, Jamie helps organizations practicing Lean move from employee resistance, inconsistent performance, and improvement stagnation to highly engaged frontline teams solving problems and continuously improving toward organizational goals. Jamie has facilitated workshops for the Association for Manufacturing Excellence, American Society for Quality, and Fortune 500 executives, in addition to years of coaching and facilitating in her formal management roles. She authored a chapter in the book Practicing Lean and has facilitated webinars and podcasts in partnership with Gemba Academy. Jamie brings passion, fun, and purpose to her work in Lean and leadership. You may remember her from her keynote presentation at the 2017 PIA Continuous Improvement Conference.

Learn more about how Jamie can help your organization at www.processplusresults.com

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