WORD

Understanding Lean — One Word at a Time

PRODUCTIVITY®
Enterprise in motion™

FLOW

DEFINITION

- To move along or out steadily and continuously in a current or stream
- To go from one place to another in a steady stream
- The action or fact of moving along in a steady, continuous stream
- A steady, continuous stream of something

If you were paying attention, you probably noticed the theme in the definitions above is "steady, continuous stream". Now think of this in terms of your manufacturing and administrative processes...can you say that you have a steady flow?

PURPOSE / FOCUS

The goal of flow management in manufacturing and non-manufacturing environments is to create a waste-free environment by seamless linking value adding activities/ processes to collapse the amount of time it takes to reliably and predictably produce and deliver quality products or services, on time to customer demand.

Making Flow flow is the ultimate goal of Lean. There, we said it. I am sure some would argue, but think about it, if you achieve flow, you've mastered the art of delivering to the customer what they want when they want it. What's better than that?

Flow in Manufacturing uses the principles of takt time (customer demand), jidoka (automation with the human touch), heijunka (production leveling), pull (or cell) production and standard work to even out production, remove variation and waste, and establish work standards, the starting point for continuous improvement.

FLOW

LINKING VALUE-ADDING ACTIVITIES

As you begin to look at establishing flow in your environment, it is important to understand your value-add vs. non value-add ratio—in other words, what percentage of processing time is value-added... something the customer is willing to pay for OR non-value added but necessary...something the customer might not be anxious to pay for, but without which the service/product could not be delivered—we refer to these as the "necessary evils".

Your initiation into flow in manufacturing begins with non-value-added processes/activities/steps...as these are targets for elimination. Next, you want to review the necessary evils to see if any can be eliminated. Those that can't be eliminated should be made highly efficient by removing as much waste in the process/activities as possible. Remember, Flow Management's ultimate goal is the seamless linking of *value-added* activities.

For a bit more on Value Add/Non-Value Add, **click here** to see our WOM on the subject.

Once you understand VA/NVA, there are several tools to help you as you work to achieve flow including

- The Standard Work Sheet—documents the current process flow
- Process Capacity Table—outlines the current capacity of the process
- Time Observation Sheet—charts how long it takes to do each element of work
- Standard Work Combination Sheet—a pictorial of manual, machine and takt time—from data captured on the process capacity table and time observation sheets
- Value Stream and Process Maps—outlines the process steps and points you to improvement targets

FLOW IN ACTION

Most times when thinking about process flows, we think about manufacturing process flows (work-in-process/finished goods), but there are other flows that will also need to be optimized, including:

- Administrative and Information Flows—the movement of information/data and administrative steps required to transform a demand into a service for the customer
- Material Flows—the 'supply chain' management of raw materials, parts, components, semi-finished goods, and finished products
- Customer Flows—managing the end-to-end customer journey (what we should all be striving to achieve)

Here are some examples of Flow in action:

https://www.productivityinc.com/flowing-case-carts-to-the-operating-room/

https://www.productivityinc.com/cell-makes-quote-process-flow/

PUSH, PULL AND FLOW

Although Flow is by far the best way to link processes, for some reason, most people have a tendency to default to a "pull" connection... which is #2 on the best ways to connect processes list. In pull environments, downstream processes signal their needs to upstream processes hence reducing overproduction. If you're working in a "push" environment, pull production is a good next step, but keep in mind, Pull is better than Push and Flow is better than Pull. Flow should be the ultimate goal.

NOTABLE QUOTE

"Great things are done by
a series of small things brought together."

Vincent van Gogh

NOT TO BE CONFUSED WITH

- *Overflow*...the excess or surplus not contained in the available space and the exact opposite of what flow is working to do;
- *Plateau*...to reach a state of little or no change...as part of the continuous improvement nation, we can't condone this...no resting on laurels!!

Interested in the forms we noted above, download a copy by following the links below:

Standard Worksheet
Standard Work Combination Sheet
Time Observation Study
Process Capacity Sheet

Let's talk about difficulties in your Flows for customers...info@productivityinc.com.

PRODUCTIVITY®
Enterprise in motion™