July 07, 2019
Volume 18, Issue 27

Lean Thoughts

Respect for People and letting them control the process

One of the basic tenants that all Lean Practitioners evoke for a successful Lean program is the need for "**Respect for People**". But what does this mean and how does that look like?

Respect for People means that you have an environment where everyone is respected in an adult-to-adult relationship and no individual is blamed but the processes are always suspect and prone for improvement.

At Toyota this is manifested that everyone is respected and in essence everyone is equal but were hired as professionals but with a respect for their specific talent. That respect can be seen as being an excellent cleaner (janitor) developing automation through robotics (engineers) or their talent to make inventory dance through the supply chain until it is required line-side.

Toyota also knows that if you distract a Team Member it can take them at least 22 minutes for them to get back into their rhythm. For this processes are designed that can be visually monitored and observed without interrupting the Team Member.

But knowing that they have a team of professionals … and that these professionals are very capable of making decisions they have overlaid within the organization the empowerment of decision making to the extreme. They have empowered them with the capability to stop the line if they suspect a quality defect could be entering the process. Stopping the line is not a light decision when you consider that you could immediately idle 2500 team members … but this choice of stopping the line versus allowing a quality defect to escape is what makes the Toyota brand synonymous with quality.

This is in part of the over-arching philosophy of Jidoka that is a primary pillar of the Toyota Production System. It started by allowing Team Members to stop production if a quality issue was detected without any reprisal and then became a need to be included in machine design.

JIDOKA

Synonym(s): *Autonomation*

Providing machines and operators the ability to detect when an abnormal condition has occurred and immediately stop work. This enables operations to build in quality at each process and to separate men and machines for more efficient work. Jidoka is one of the two pillars of the Toyota Production System along with just-in-time.

Jidoka highlights the causes of problems because work stops immediately when a problem first occurs. This leads to improvements in the processes that build in quality by eliminating the root causes of defects.

Jidoka sometimes is called *autonomation*, meaning automation with human intelligence. This is because it gives equipment the ability to distinguish good parts from bad autonomously, without being monitored by an operator. This eliminates the need for operators to continuously watch machines and leads in turn to large productivity gains because one operator can handle several machines, often termed *multiprocess handling*.

Where Lean Thoughts can become Reality

"Unless you try to do something beyond what you have already mastered, you will never grow."

Ronald. E. Osborn

KUNST Solutions Corp.

Richard Kunst
President and CEO
Tel: 519 651 2341 E-mail: rkunst@kunstartofsolutions.com Web: www.kunstartofsolutions.com

Lean Thoughts

Respect for People and Process

The concept of jidoka originated in the early 1900s when Sakichi Toyoda, founder of the Toyota Group, invented a textile loom that stopped automatically when any thread broke. Previously, if a thread broke the loom would churn out mounds of defective fabric, so each machine needed to be watched by an operator. Toyoda's innovation let one operator control many machines. In Japanese, jidoka is a Toyota-created word pronounced exactly the same (and written in *kanji* almost the same) as the Japanese word for automation, but with the added connotations of humanistic and creating value.

Combining the Respect for People (don't interrupt) and the empowerment of the Team Members (Jidoka) the adoption of Andons within the operating system were added.

In direct translation and Andon simply means a lamp. However, in final assembly each station is equipped with an Andon cord. If a Team member detects a problem or feels that they need assistance they will pull the cord once … this then lights up their station on a large Andon board usually in the colour yellow. This signals that their Team Leader is required immediately at the Team Member's station for assistance.

However, if the Team Member detects a major obstacle they can pull the cord twice which will immediately stop the line and the Andon Board will glow Red signaling immediate help is required.

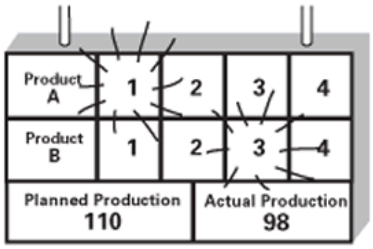
ANDON
A visual management tool that highlights the status of operations in an area at a single glance and that signals whenever an abnormality occurs.

An andon can indicate production status (for example, which machines are operating), an abnormality (for example, machine downtime, a quality problem, tooling faults, operator delays, and materials shortages), and needed actions, such as changeovers. An andon also can be used to display the status of production in terms of the number of units planned versus actual output.

A typical andon, which is the Japanese term for "lamp," is an overhead signboard with rows of numbers corresponding to work- stations or machines. A number lights when a problem is detected by a machine sensor, which automatically trips the appropriate light, or by an operator who pulls a cord or pushes a button. The illuminated number summons a quick response from the team leader. Colored lighting on top of machines to signal problems (red) or normal operations (green) is another type of andon.

.

Simple andon.



Complex andon.

KUNST
Solutions Corp.

Richard Kunst
President and CEO
Tel: 519 651 2341 E-mail: rkunst@kunstartofsolutions.com Web: www.kunstartofsolutions.com