

Lean Flow Design "The Holistic Approach"

How many times, as we do our best to continuously improve our facilities, have we fixed one area only to cause havoc in another? Believe it or not, this is a practice that is all too common in many companies. By focusing on a small area of concern without fully investigating the "supplier / customer" relationship many problems may occur. These types of focused studies in the Lean Flow world are known as "Kaizen Events" and are typically addressed after a full implementation has taken place.

So how do you make sure that you cover all the appropriate areas or processes? According to the Lean Flow specialists at FlowVision LLC, better known as experts in "Lean in the Green Industry", you must use a "Holistic Approach". So what exactly is a "Holistic Approach"?

In its simplest form, you must involve both the upstream (Supplier) and downstream (Customer) process for the implementation. With this in mind, let's remember that any process feeding a process within the implementation scope, whether it is materials or another process, is considered a "Supplier". In the same way, any process we supply, is considered our "Customer". As an example, take Star Roses in Dinuba, California, and their lean



Belt Driven Production Lines
Star Roses

flow implementation of the Bare Root Production area as a benchmark. Star Roses is one of the country's top producers of bare root roses. The entire west coast production of Knockout Roses runs through this facility, which continues to grow. So when Bill Mann, President of Star Roses, contacted Gary Cortes, founding Partner of FlowVision, and began discussing a production layout for the new facility, Gary was sure the conversation would not end there. Simply focusing on the production area would not capture enough processes that could generate the benefits we were looking for. There are materials that feed the production area that drive the highest level of efficiency. There are also by-products of the production area such as finished goods and waste that must be addressed. Upgrading existing processes to a more efficient and cost effective method also must be a high priority. By using a "Holistic Approach" while designing the facility, both FlowVision and Star Roses came up with a highly successful Lean Flow design.

The first step in facility design is to evaluate the existing processes and determine how you can more efficiently and cost effectively layout the area without sacrificing quality and/or safety. While this process is taking place, involving the "Customer" and "Supplier" in the design is imperative to the overall success of the implementation. In the case of Star Roses, we determined that the design would take on a whole new persona. The existing system was driven by operators working on belt conveyors with little flexibility when it came to running different variety. Flexibility being one of the main efficiency targets, this was the place to start. It was determined that by separating the customer requirements into smaller "Cells" we could achieve both productivity improvements, as well as, increased flexibility. As simple as it may seem to split the room up into smaller work cells, there were numerous issues that arose. Issues such as "How to remove the waste material from numerous locations?" or "How to determine what raw material goes to which Cell? These issues were solved by taking a "Holistic Approach" to the implementation.



Cellular Lines - Star Roses

For example, by involving the "Supplier" of raw material in the implementation, we found out that the raw material comes to the facility as a mixed variety of differing amounts. These bundles are sorted into individual cages and staged in in-process kanban (IPK) lanes in front of production. With a little help from production planning we developed a very accurate production schedule which was visually transferred to the production floor. One Lean Flow focuses is visual signals. These visual signals keep the floor running with minimal supervision. To solve this issue we were able to calculate IPK lanes for each Cell and paint them on the floor. These lanes signal to the raw material handler which Cell requires more product. As well, the line side material handler could now determine which product supply was needed next.

The example above from Star Roses is simply one case that shows we cannot have tunnel vision when we are implementing Lean Flow. Had we simply redesigned the production lines not include the Customer/Supplier processes; issues with Production Planning, Finished Goods Supermarket and Cold Storage, would have occurred and had detrimental results. Not to mention a very stressful startup.

Star Roses is one of many FlowVision customers that has implemented Lean Flow utilizing the "Holistic Approach". Kaizen

Bottom line: "By taking a Holistic Approach to our implementation, we ensured the season ramp up would go without a hitch" says Bill.

events are used by many companies, but we feel that the time frame to successfully transform an entire company to a Lean Flow company is much longer. A company utilizing a Kaizen approach takes years to convert an area, whereas it takes 3 - 4 months to convert it utilizing the "Holistic Approach". Since Kaizen Events are limited in scope they are also limited in benefits.