LEAN KAIZEN News

Together we lean smarter

Client success story

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Building A Lean Plant From Scratch

Imagine, you are asked to design a new plant based on lean principles.

Not many people has a chance to start all over again in life. It would be very difficult for manufacturing plant especially after huge capital has been invested in setting up the production lines with conventional layout. To re-do the entire plant layout with lean principles is a rare opportunity.

This plant in Tianjin China making energy storage product, was given this rare opportunity. They were given a new plant to run their operation.

The lean champion and the coordinator together with Alex Teoh during a follow up visit

Prior to the re-location, the plant has already embarked on its lean journey after learning from its sister plant in Penang, Malaysia. The Tianjin's team has experimenting with various lean techniques.

Pamalex Consulting was invited to conduct various trainings on Lean Manufacturing System to the entire management and operation team. During this time, lean champion was appointed and various project teams were formed. The entire plant entered into an intense period where many changes were made at the shop floor. The most challenging task was shifting from conveyor based assembly lines to U Cells.

Almost at the same time, the team received confirmation that they was to re-locate to a newly constructed plant, less than 5km away. The lean champion and his core team, was given an new challenge:- to set up the entire production system and layout according to lean principles.

The workers busy setting up production cells at the new plant. The new configuration is an improved version, developed to minimize workers' motion waste and enable "Walk and Work" system. Several equipment were re-designed to be "right-sized". All production equipment and tools are totally "mobile" to facilitate quick changeover from one model to another.

Before, productivity dropped when someone did not turn up to work in the production line. Finding replacement is always a unpleasant task.

"With the cellular system, production start and continue to run from the first minute o the shift, even one or two workers did not turn up."

Suddenly the challenge became steeper. The team has to abundant the stepwise implementation plan and to find a new strategy. Now they have to do it right in one go.

Therefore team needed to find out best practices and put them all to work. On top of this, the team has to make plan for the transition, special attention paid to ensure no disruption to customers' orders.

The final three months saw a lot of hectic activities. The new plant was successfully commission. After two months, 80% of the production cells showed 10-30% productivity gains.

Among the key leans features were : Overall Lean layout to minimize material flow distance. Flexible U shape cell. Quick Changeover and its support system Pull Part Supply System.