LEAN KAIZEN News

Together we lean smarter

Meet The Challenge Head On

Lean does not stop at good training…

Intensive activities inside the Kaizen Center. Various Focus Kaizen Teams worked concurrently, facilitated by Pamalex consultant.

When pipes burst on the offshore oil rig, the phone in the sale office of Company N will be ringing. Urgent orders of various configurations of vortex gaskets will be placed and transmitted to Company N production facility located in Malaysia.

The challenges for Nichias in Malaysia are two folds. Beside fulfilling the demanding customers from oil & gas companies, the need to produce wide range of product ranging from10cm to 200cm in diameters with hundreds of configurations, all in very short lead time.

“Adopting Toyota Production System is to strengthen our Productivity & Delivery performance without affecting our quality performance. Beside lead time, cost reduction, especially in direct operational cost is critical for the long term survival as we are facing fierce competition from low cost countries like China and Indonesia.” Explained by the Japanese MD, during the launch of the Lean Transformation Program, led by Pamalex Consulting.

Company N, a regular winners at various QCC competition at national level, has a strong quality improvement culture. The Lean Transformation Program aimed to build on the existing strengths by focusing on two additional performance indicators:- productivity and lead times. The program started with intensive training for all supervisors and managers from other products groups such as Automobile Gaskets, Vortex Gasket, Building Materials, Insulation Material, Sealing Materials and Industrial Product.

Vortex Gasket production plant is selected to be the pilot plant.

BEFORE: Using Batch Production Layout

AFTER Space Saving after lean conversion

BEFORE PULL: Excess sealing strips produced

AFTER PULL: JIT production of sealing strips

Instead of the common belief that the “urgent orders” from oil rig upset the production, the diagnosis analysis reviewed that the overall lead time and shipment performance dropped significantly when there were project orders. A project order represents hundreds of gaskets of various sizes and requirement needed to be manufactured over tight schedule to support new oil rig construction. The current batch production system were in distressed mode when many parts are forced to wait somewhere in the queue.

A major decision was made to adopt Cellular Manufacturing system to cut queuing time. Five new cells were built and supported by SMED and Pull techniques which allow different parts to be manufactured in continuous flow manner,

With the reduction of changeover time, the cells conduct changeover several times per shift according to the sequence of orders.

One of the problem encountered was long delay in final inspection. The inspectors could not kept up with so many different variety produced in one shift. With the support of quality department, the role of inspection changed from “final” to “in-processed” inspection. The final inspection was eliminated eventually.

“The increased in output, allows us to eliminate overtime and shut down night shift. On time shipment hits 95% from 66%. The 50% space saving allowed us to put in additional machines. Despite this, we believe there are more room to improve.” Reported by the lean champion, Ms. Lee during the closing review.

Company N does not stopped at training. The training follows by Focus Kaizen workshops brought real results. Now, all other plants followed vortex gasket and started their own lean programs.