

# LEAN KAIZEN News

Together we lean smarter

## Making the Foot Massager Right the First Time Every Times

### Build Quality Into the massager!

ICB, an enterprising SME, diversifies itself into Vacuum Cleaner and Foot Massager production under its own brand name. The products are for domestic and export market.

This newly established assembly division has been inconsistency in quality causing late deliveries. The market penetration effort was badly affected.

Pamalex Consulting is asked to assist to solve this problem. After the diagnosis session, it was discover that 80% of the problem came from the Foot Massager final assembly. Subsequent training and Focus Kaizen sessions were conducted.



AFTER : The Operator conduct self check before letting the product moves to next station.

The existing system consists of 2 assembly lines, utilizing belt conveyors. Both lines have been balance with conventional IE technique, but several weaknesses were discovered during the Kaizen sessions.

The improved system merged the two assembly lines into one continuous flow line. Work steps reorganized according to Takt Time and were clearly marked on the production line. With a proper pitch control mechanism, each operators have sufficient time to complete his task with care. Standard works were out in place. In addition, operators were re-trained with Build In Quality techniques.

## Client success story

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Before improvement, the workplace always looked unorganized workplace. Excess part is everywhere and yet short part situation is common. While both lines are completing for output, it is common two lines to argue who get the parts.



BEFORE: Excessive Parts found near the assembly lines

Before the Lean project, quality problems were the major issues. Upon careful analysis of past records, several critical areas were identified and actions are taken. One of them is the careless mistakes made by the operators.

Poka Yoke devices were used to screen critical components such as motors.

Testing routines were standardized to shorten the on-line testing time. However, it was the self inspection discipline displayed by the operators contributed the most in cutting down defects. As the result, First Pass Yield and Final Inspection result improved significantly.

The training session proven to be critical. Pamalex unique training approach, reaching from top to front line operators help formed a common understanding and build sense of direction. Operators participated actively in the LMS training.



Night Shift Training. No one is left behind!

"In the past, we have tried 5S, QCC and other means to improve with little result. The 3 months intensive coaching from Pamalex taught us Lean and Build In Quality, starting by reducing inventory and solving problems at Gemba, the actual workplace." Said Eddie Cheah, the project leader of the LEAN initiative.

"We solved our quality which was very critical for the success of this new product! We were surprised to see how we can could incorporate so many lean techniques we learned in class to be put in use quickly." Eddie Cheah, continued to add on.

	BEFORE	AFTER
Manufacturing space utilization-assembly	100index	65 index
Final Inspection	68.4%	91.8%
IN-Line First Pass Reject per 1000	322	34
Direct Labour Productivity - Assembly	51.6%	77.3%
Dollar value of in-process and finished goods inventory*	0.62 million	0.49 million
Production throughput time/container	6 weeks	5 days
Product delivery lead time†	10 weeks	4 weeks