

## Project LEAN Sustained

In mid 2004 Johnson Diversey USA launched the initiative that is now called PAVE (Process and Value Excellence), and at the same time we were growing our factory production requirements by 26% over 2003, mostly in 5L bottles. This production increase meant we started to run into capacity problems, which has resulted in stock outs and loss of efficiencies. In order to overcome these problems we looked into what PAVE could offer and found it to be an adaptation of what is commonly known as LEAN or TPM. This is a way of looking at how we do things that grew from the Toyota car manufacturing process. Basically it is the process of eliminating waste from what we are doing, with 'waste' being anything that does not add value.

To help us learn LEAN we employed the services of Brian Levitan from LEAN Australia to teach the principles of LEAN to a Supply Chain team and to make sure that the team is capable of continuing to use LEAN processes to improve performance and actually take control of what they are doing. LEAN principles can be applied to the whole of the workplace and can make a real difference in performance, so while the 5L 4 head filler is the first project step, the intent is to make sure we extend the project to the rest of manufacturing and also to distribution and beyond.

The 5L 4 head filler project is now in its 3<sup>rd</sup> month of achieving its target production and the team has almost completed its packaging line change plan. We started the project with 2 training sessions on what LEAN is and on the principles of Standard Work, Line Balancing and how to run a Kaizen event. This let the team calculate the root cause of the problem, which was that customers required 2000 bottles a day from the 4H line and we were producing only 1200 to 1500 per day, and then devise a plan to push production to 2500 bottles per day. These actions included balancing the line, scheduling, reduction in wastes of waiting and downtime, documenting standard work. Implementation of the plan has been very successful (see table 1) and has not only delivered the required production increase but has seen 2 forklifts sent back and replaced with 'scissor lift' pallet stackers, a new inkjet printer that puts the batch code and other information directly onto the bottle, and a confirmed delivery date for a labeling machine (free on loan) that saves us \$40k of capital spend. The 4 head filling will be moved to its new setup by the end of July. The utilization of the line was increased by 34% , whilst st the same time reducing overtime by 25%. The team has done a great job of keeping the utilization and productivity gains in place.



Chandra updating daily production statistics

**Table 1:**

KPI	Was	Now	% Improvement
Production per day	1500	2000	33%
Downtime (hrs per shift)	4.3	1.125	74%
Line Utilization	68%	91%	34%
Shift Length (hrs)	10.7	7.7	28%



LEAN 'war room' in factory.



LEAN team & operators, Steve Sengmany, Greg Scoular, Bob Sonter & Willie Peterson with one of the scissor lifts

The team is now moving to the next filling line to repeat the process and is keen to learn more LEAN processes, with the 5S process, Kanban and Value Stream Mapping all on the agenda.

Congratulations to the whole team for the effort and achievement so far!

(Team members are Mike Howell, Greg Brooks, Darren Reemeyer, Willie Peterson, Greg Scoular, Bob Sonter, Matrix Leo and the Team Leader, Val Johnson).