

BUILDing EXcellence with Screws & Fasteners

In February this year **Buildex, Moorabbin VIC** a world leading manufacturer and supplier of self-drilling screws and fasteners jumped on board CTPM. Commencing their TPM & Lean journey, two Cross-functional Improvement Teams were formed with a common goal – **improve OEE by 15% in 12 weeks!**

The teams shared the same team structure (consisting of representation from Production, Maintenance & Technical Departments) and the same standardised approach. That approach dedicated time and energy to specific tasks with the aim of getting the best possible outcome.

The specific team tasks were to:

- Set targets;
- Develop Baselines (starting performance);
- Conduct Work Area Surveys;
- Conduct observations to ensure all issues were noted;
- Generate Root Cause Analysis;
- Develop an Implementation Plan for the actions that will tackle the root cause;
- Conduct a Mid-point Presentation to the Leadership Team;
- Track the implementation of actions;
- Measure and confirm results; and
- Conduct a Final Presentation to the Leadership Team.

The **Alloy Plating Wizards Team** identified the two main causes of downtime as slurry blockages and loading of long screws. The Root Cause Analysis led the team to implementing two actions:

1. New Cleaning SOP for flushing the slurry lines with carrier and swapping the mixing tank at the beginning of every week; and
2. Weld a plate into the hopper of Barrel 1.

Figure 1 – Alloy Plating Wizards Final Presentation

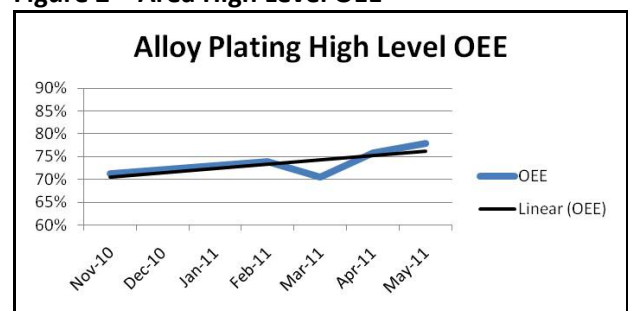


Left to Right: John Dickinson, Colin Bosomworth, Chris Madden, Mark Doneddu, Matthew Sutherland, Ashraf Andrawis and Dhana Dissanage.

Note: Absent on the day was Richard O'Brien

The Cleaning SOP has reduced the downtime caused by slurry blockages by more than 50% and the introduction of the welded hopper plate decreased the loading of long screws from 25 minutes to just 10 minutes, and as an added bonus short screws have also reduced from 10 minutes to 4 minutes!

Figure 2 – Area High Level OEE



As shown in Figure 2 above OEE is up from **74 to 78%** which would have been considerably higher if more product could be supplied to the area. However, the result is still very significant as 1% OEE equates to \$46,000 worth of sold product / month, so the area is now processing an additional **\$184,000** of extra product / month, a phenomenal result!

The other Cross-functional team, **Plan(T) 2** identified the main causes of downtime on Line 3 as Neo stoppages, Packing Station optimisation and excessive powder on the chain. The Root Cause Analysis highlighted the following actions for implementation:

1. Redesigned Neo feed rail with only 2 step adjustment steps to run all products;
2. Optimise the Packing Station programming; and
3. Reduce the powder gun KVs.

Figure 3 – Plan(T) 2 Final Presentation



Left to Right: John Dickinson, Colin Bosomworth, Chris Madden, Gurnett Vincent, Alan Brooke, Santhosh Balakrishnan, Peter Hendrie and Kostya Shchuhin.

Note: Absent on the day were David Collinson and John Minuzzo

The team's redesigned Neo feed rail has eliminated jam ups as well as drastically reduce setup time due to the catch point being removed. The Packing Station programming was optimised to reduce the time to pack a box of 500 screws by 10%.

Last of all, the team reduced the gun KVs on all powder guns which meant chain cleaning is now only required once / week instead of daily and as an added bonus powder usage has also decreased.

These changes have seen OEE for Plant 2 jump from **66% in February to 84% in May!** Line 3 had the most significant change increasing OEE from **55% to 79%**. The cost of sold products for a 1% increase in OEE is \$6600 for Line 3 and this equates to a staggering **\$158,000** of additional product every month!

Both teams have shown that following this structured approach to continuous improvement will produce excellent results, and the Leadership Teams very well received response from the Final Presentation is further proof of this. With Cycle 2 Teams due to kick-off at the end of June the overall feeling from everybody involved is very positive.

On behalf of CTPM we would like to congratulate both teams for their commitment and success in the program, and we wish them all the best during their next cycle.

For further information please contact:



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