

Better Teamwork Lifts an Aussie Icon!

When you think of garage doors, what brand first comes to mind?

I performed a quick survey recently as I walked down an inner suburban Melbourne street and saw that seven out of every 10 garage doors had a B&D logo!

B&D (which stands for Byrne and Davidson) is an iconic Aussie company that has been around since 1946. Currently they export to 22 countries globally and have operations in 3 states as well as New Zealand and Hong Kong.



The challenge in B&D's Victorian operation was similar to ones facing many manufacturing operations. How do they decrease equipment down-time and lift productivity without necessarily making a major capital investment? A further challenge they faced was to improve the teamwork and communication within their production team as well as with their maintenance function.

In October 2011, as part of an improvement process undertaken by B&D, a Cross-functional Team was established in their high volume residential roller door line (Series 1 line). The team consisted of the Supervisor, Leading Hand, an Operator, Maintenance Fitter and their Continuous Improvement Co-ordinator.

The task for this team was to identify the main equipment and process losses, lift productivity

by 15% and to identify and eliminate waste. Not an easy feat!

Figure 1 – Cross-functional Team



Back Row (L to R): Louis Lee (Operator), Leon Thebus (TPM³ Co-ordinator), Julio Bruna (Maintenance Fitter)
Front Row (L to R): George Boucher (Supervisor) and H. Nguyen (Leading Hand)

After 6 weeks of data gathering, surveying of Operators and direct observations of line operation, the team better understood what the main problems were. They prioritised them as follows:

1. The roller doors not rolling up evenly ("Coning") at the last station of the process;
2. The plastic wrapping used to protect the door being difficult to pull down from its dispenser; and
3. The Operators having to perform extra work due to equipment not operating as designed.

After these problems were identified and prioritised the team undertook a root cause analysis process where all the possible causes were listed and then either confirmed or ruled out by fact.

The root cause analysis process helped the team in 2 important ways:

1. Production and Maintenance staff were able to discuss issues in a 'no blame' environment; and
2. Potential causes were broken down so that each could be identified and analysed in turn.

An example of this was the "Coning" issue. Possible causes were listed as either equipment related, material related or people related. When all the equipment related issues were addressed it was seen that there was still a percentage of the problem occurring.

Further investigation showed key differences in how experienced Operators performed the process as compared to 'new starters' or Operators transferred from different lines. The critical elements of the process were identified, documented and reinforced in a Visual Work Standard.

Figure 3 – 'Coning'



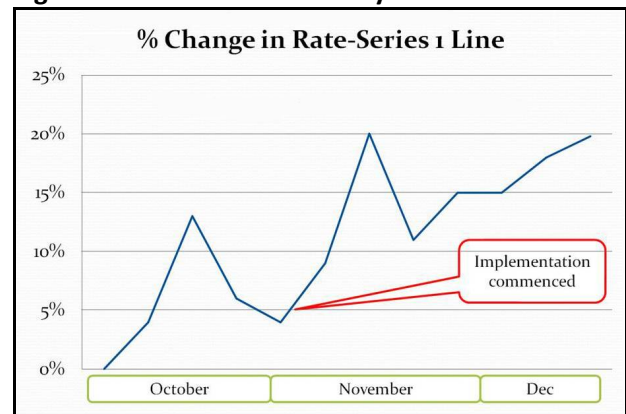
If the door is not rolled correctly, 'coning' occurs leading to rework and scrap

Following the implementation of required changes and frequent communication via toolbox meetings (involving the Supervisor, Production Operators and Maintenance representative) some positive results began to emerge:

- There was a **19.8% improvement** in productivity from the previous 3 month average (Aug – Oct) to the achieved rate in mid December. If this rate can be maintained the annualised improvement against budget will be over **\$63,000**.

- Scrap losses related to wastage were recognised at the start and end of the steel coils which are used to make the roller doors. The root causes of this waste have been identified and countermeasures put in place. The expected return on this is in the order of **\$27,000 per year**.

Figure 4 – Series 1 Productivity Results



Throughout this process the Series 1 team have learnt some valuable lessons. Firstly, if you have a problem, do not put it into the 'too hard basket'. The build up of many problems such as these leads to frustration and demotivation. Secondly, without a responsive and committed Maintenance group any improvement is difficult to implement.

Lastly, making continuous improvement and problem solving a part of the way they work will ensure that B&D roller doors continue to be one of the highest quality and most widely used roller door in the market.

In 2012 B&D are planning to use the same continuous improvement process within their Kilsyth operation to focus more closely on minimising internal quality losses as well as to maximise the efficiency within their warehouse operation.

For further information please contact:



Paul Furtado

Senior Navigator

Phone: 0437 997 519

Head Office: +61 2 4226 6184

Website: www.ctpm.org.au