

TXM Lean Solutions – Marcus Ward **Lean Manufacturing Senior Consultant**

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Empower - For Progressive Engineers, Joiners and Other Manufacturers.



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Current Business	Lean Manufacturing Consultancy. I am the senior lean Consultant at TXM Lean Solutions Pty Ltd.
Client Base	SME and larger Manufacturers and Engineers
Credentials and CV	My Lean Manufacturing career has spanned 26 years to date Toyota - production roles 5 years then production management roles 8 years, 13

	<p>years total, 1992 to 2005. Toyota has their own management training school in house. Over 8 years I sat and passed 33 of Toyota's formal lean manufacturing and related management courses with 98% or greater pass rate, this grade placed me top of class or second to top of class consistently over 8 years. Over 13 years at Toyota I learnt, "lived and breathed" the "Toyota Way" of Lean Manufacturing, Kaizan and Just In Time Manufacturing (JIT)</p> <p>SME lean consultant in Australasia for 13 years, 2005 to 2018 current; I have consulted to and work closely with a long list of progressive SME and larger Australian manufacturers and engineers, from west to east coast, applying "The Toyota Way"</p>
<p>What is Lean Manufacturing</p>	<p>Lean Manufacturing is a documented plan to: eliminate all forms of daily wastage from the manufacturing process; and to maximise daily workflow and production</p>
<p>What is Factory Shop Floor Data Collection Software</p>	<p>Factory shop floor data collection software is the tool that tracks on the factory floor and reports live accurate times continuously though the day on all; manufacturing tasks, downtime jobs and wasted time.</p> <p>I advise all my manufacturing and engineering clients it is imperative to use tablets on the factory floor and factory shop floor data collection software when adopting lean manufacturing.</p> <p>It is pointless to have a lean manufacturing plan without having a tool that records and reports live and accurate times throughout the day on all: manufacturing tasks, downtime jobs and downtime or wasted time.</p> <p>Where manufacturers and engineers currently using a manual paper based system where factory staff complete their job sheets at the end of the day outlining their start, finish and total time on each job, this is an inaccurate poor system of recording time and a poor system for progressing lean manufacturing.</p>

	<p>Where manufacturers and engineers currently do not in any way record their times on each job this will compromise any lean manufacturing initiative.</p> <p>It is imperative in the year 2018 for all Australian manufacturers and engineers to use tablets on the factory shop floor and factory floor data collection software. Manufacturers and engineers operating without tablets on the factory floor and factory shop floor data collection software operate at unnecessary substantially higher labour times and labour costs on all jobs.</p>
<p>What is Industry 4.0?</p>	<p>For manufacturing and engineering 'Industry 4.0' is about using Information and Technology to drive production and factory productivity</p>
<p>Factory Shop Floor Data Collection and Job Scheduling Software and Industry 4.0?</p>	<p>For manufacturers and engineers to adopt 'Industry 4.0' you need tablets on your factory shop floor data collection and job scheduling. If you are operating with either:</p> <ol style="list-style-type: none"> 1. manual time cards (ie "cheat sheets") where your factory staff at the end of the day fill in their start time, finish time and time taken on each job, or 2. not tracking your staff times on jobs at all <p>Either way, you are operating "blind" or practically "blind" as you are operating as manufacturers and engineers did over 100 years ago.</p>
<p>History - Recording times taken on jobs early 1900s</p>	<p>In the early 1900's most UK and Australasian manufacturing and engineering businesses did not track their factory staff times on jobs. In early 1900 a small percent did record their labour times on jobs by having their factory staff fill in their time sheets (ie "cheat sheets") at the end of the day.</p> <p>Manual time sheets have many substantial failings, the three main failings include:</p> <ol style="list-style-type: none"> 1. The times recorded by factory staff at the end of the day are highly inaccurate, mostly between 20% and 50% inaccurate

	<ol style="list-style-type: none"> 2. They do not motivate factory staff to work efficiently and quickly, so many staff work slowly and at the end of the day staff simply record how slowly they worked. So labour times and labour costs on jobs are substantially higher than what they should be 3. The reports are available a day or two after production occurred so the use of the reports are very limited and in many cases pointless
Recording times on jobs since year 2000	<p>Since early 2000 Add On factory shop floor data collection software and leading ERP software with labour management modules have been available to SME and larger manufacturers and engineers. Such software use tablets or bar code readers on the factory floor to track all: jobs, factory staff, job status and all job times.</p> <p>Factory shop floor data collection Add On software suits all forms of manufacturing and engineering industries and businesses including custom one off manufacturing as well as more batch or production run manufacturing.</p>
Production Increases Witnessed	<p>I have four manufacturing and engineering clients who have used Empower factory shop floor data collection and job scheduling software for four years to date. My clients with both lean manufacturing and use of Empower Software have reduced their times on jobs therefore reduced their labour cost on jobs substantially, by up to 68% efficiency, this is with strong lean coaching and supported by the Empower software.</p> <p>I have seen and used a number of factory floor data collection software tools over the years both here in Australia and the UK, none as good as Empower Software</p> <p>I have recently recommended Empower Software to twelve of my manufacturing and engineering clients</p> <p>Empower factory shop floor data collection and job scheduling software can interface seamlessly with leading Australian ERP accounting software options including; MYOB Advanced, MYOB Exo, MYOB Greentree, Accredo and Netsuite.</p>

What is involved in implementing Empower Factory floor data collection Software	Empower Software is simple to implement and simple to use
What are the main drivers to maximising Profitability in manufacturing and engineering?	<p>The 3 Main Key Performance Indicators (KPIs) and drivers that maximise the profitability of all manufacturers and engineers:</p> <ol style="list-style-type: none"> 1. Factory staff meeting and not exceeding budgeted daily and weekly Downtime hours 2. 3. Factory staff meeting and not exceeding their budgeted labour times on Manufacturing tasks 4. Accuracy of Budgeted labour times and labour cost on jobs, in quotations and any pricelists <p>Without tablets on the factory floor and factory shop floor data collection software, none of these 3 KPIs can be reported with any accuracy and none can be reported live, therefore none can be managed well.</p> <p>To achieve and maintain a high performance high productivity culture in manufacturing and engineering factory shop data collection software, and effective use of it, is a necessity.</p>

How I use Factory Shop Floor Data Collection & Scheduling Software in my role as Lean Manufacturing Consultant?

For my Lean Manufacturing consultancy work with clients I simply run the Empower Software reports I require. These outline with accuracy all times involved in: Downtime jobs, Manufacturing tasks and Wasted time. Myself and company management table and discuss the data in the reports to make informed management and planning decisions. Empower Software is cloud and web based, this allows me to monitor client performance from any where any time

What I like about Empower Factory Productivity & Job Scheduling Software

1. factory staff are fully engaged in using Empower and see their expected times and achieved times on jobs on their tablets on the factory floor, this reduces time wastage and drives and maximises daily productivity and production. This allows factory staff to continuously perform at their very best
2. production management have a proper tool to schedule all their jobs and to report accurate and live times and job status. Production management can see and address issues instantly. This allows Production management to perform continuously at their very best
3. Empower Software has 200 standard screens and reports on all possible aspects of production and Lean Manufacturing performance

4. Job scheduling is included
5. Internal DIFOT and external DIFOT reporting (ie Delivered In Full On Time) is included
6. Software development progresses at a rapid rate
7. Empower has a team of manufacturing experts available to every client. This guarantees new clients successful implementation of their software and in short time frame and guarantees high level on going support
8. Empower has set client training program for 2018 and beyond so all manufacturing clients have option of regular and on going training from manufacturing experts in their State and city close by. This guarantees manufacturers maximum training, therefore maximum use of the software and therefore maximum gains from tool
9. Factory staff performance reviews are factual, as discussions are based on their individual staff member's Empower reports
10. Quoting management see accurate actual times on jobs reported. This is necessary to refine labour times and labour costs on jobs in all future quotes
11. Daily and weekly Downtime and time Wastage is reduced substantially. All Manufacturing times and manufacturing costs on jobs throughout the day reduce substantially

Please feel free to email any questions you may have. If you prefer to phone to discuss any points please email me and we will schedule a time and I welcome our phone discussion

Yours Faithfully

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