WinMan ensures Lean and precise production at Lander Automotive

Based in Birmingham, Lander Automotive is a tier one supplier to leading car makers. It has recently invested circa £5m in a new facility to service a major new order to supply vehicle fluid and air carrying systems.

The emphasis is on precision planning of supplier inputs, minimal work in progress and inventory and lean processes throughout.

Lander Automotive's new plant uses the latest CNC and automation technology and includes clean room manufacturing areas. It operates a lean production discipline with minimal work in progress and extensive use of Kanbans. WinMan ERP software is one of the key enablers behind this lean operation.

Lander's Finance and IT Manager Daniel Reily explains:

> *"We are looking to increase our turnover from about £36m turnover to £50m by 2020. We are well on target to do that based on orders we have already secured."*

He says that WinMan provides the backbone of the business:

> *"We use it for pretty much everything – for inventory tracking, all our stock control, our purchasing, our invoicing, our accounting. We also use it to assist our budgeting and it plays a critical role in our production and material planning.*
>
> *I think the ability to be flexible is one of the things we like most about WinMan,"* says Daniel.
>
> *"Because we are so much smaller than our customers, the way we do things is very much dictated by them. So we have to be able to customise our systems to look and function exactly as they want them to work.*
>
> *And if you are dealing with, say, three different customers, then they will all want their part of your business to be run exactly how they want it to run. So we have to have that flexibility."*

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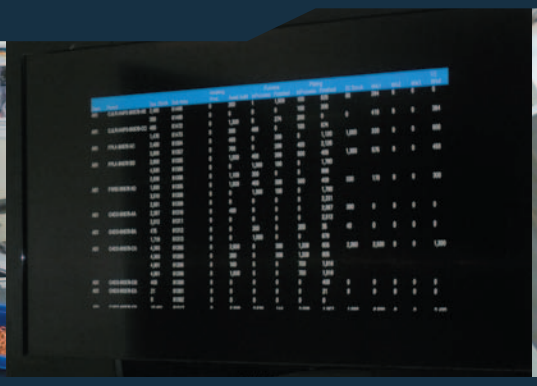

Getting supplies in place at the right time

WinMan ERP software is a major factor in ensuring that when the new plant is at peak production Lander will be able to supply customers with 10 million engine parts per year, corresponding to thousands of different part numbers, within specified 4-hour time slots.

Weekly schedules electronically to Lander. WinMan assesses everything that needs to be sourced to meet the orders on those production schedules and puts together bills of materials for each part number. It then generates the orders which are automatically emailed to Lander's suppliers.

> *"Once we have received the latest schedules we put them on the system as orders. We then run a Material Requirements Planning (MRP) process in WinMan which looks at what stock we have, what we are building over the next six weeks – taking into account lead times – and decides what to order so we can deliver what our customers want. That is a completely automated process within WinMan,"* says Daniel.

> *"Some of our parts come in from India and so have longer lead times, so we have to do a bit of weighting to balance delivery times. The only bit we do manually is shipping container utilisation. We will pull things forward or pull them back to make sure we aren't using partially full containers."*

The weekly schedules generally include two weeks' worth of firm schedules and a further four weeks' estimated schedules. Every week, when the new schedules come in, Lander updates the firm schedules, deletes the old estimated schedules, adds the new ones and re-assesses what it needs. It runs a further daily MRP to fine tune its production plans.

Tracking orders through production

Kanbans are used throughout the production process, so there is no constant tracking of the number of components used. The Kanban boxes are simply replenished when they are empty. The parts used are only back-flushed from stores at the very end of the production cycle when the completed components are scanned into the warehouse.

Shop floor data collection (SFDC) using WinMan mobile functionality is used extensively. Parts are tracked with hand-held scanners and barcodes generated by WinMan as they pass through each production processes. This gives Lander precise information on the current state of each order.

SFDC starts with every item that comes into the building from a supplier being bar-coded at the point of entry, tagged against the inventory record in WinMan, and placed in a secure stores area.

The production cell team leaders request the parts they need via WinMan and this request is then translated into a picking list for the fork lift driver to collect from the secure stores.

The picking list is displayed on a tablet PC on the fork lift truck to show the driver what is required and where it is in the stores. As the driver picks the parts they are scanned out of stores and they come off the picking list.

The parts are then delivered to flow racks on the production floor that act as intermediate Kanbans. They are then decanted off into smaller Kanban boxes to replenish supplies at the cell.

> Some of our specific needs you would never get from an off-the-shelf system.

As the part goes through each stage of production it is scanned in and out of each process using WinMan mobile functionality to check its progress.

> ***For example,*** says Daniel,

> ***We will scan items out to subcontractors for brazing and plating and bar code them back in again. That will tell us how many parts we have out and when we expect them back in again.***

Finally, when the part is finished it is scanned into the warehouse and all the items that were used to make it are back-flushed from the stores inventory.

There is potential for automation in the tracking process. WinMan extension technology allows machine communication interfaces and Lander uses this to create barcodes after a certain number of parts have been produced in an automated system.

Daniel explains:

> ***On our leak testing cells the automated system will count how many parts have passed the test and when you have done a predetermined number it will then print a label off which you then attach to the completed box. You only get a barcode label if they have all been tested and passed.***

Preparing the deliveries to ship to the customer is again a paperless process.

Lander sends an electronic advanced shipping notice (ASN) to customers that tells it a delivery is coming and that generates a pick list for the load.

> ***When we are preparing a delivery we scan the boxes out of the warehouse and on to the lorry to confirm that the load includes everything that they are expecting. We then send that list electronically to our customers as confirmation that it is on its way.***

A lean paperless process

> ***We have a completely lean paperless system, with no paper floating around the factory – works orders, job tracking cards, drawings, pick lists, specifications and so on. It is all done in WinMan. WinMan controls everything that is coming in and going out,*** says Daniel.

As well as generating and distributing invoices, purchase orders and so on, the ability to tag information to orders is also widely used. A good example of this is on tooling orders.

> ***You need to amass a high amount of paperwork to support the invoice for the tooling and we do that by tagging all the relevant items to the sales order. When we invoice the customer for the tooling we have all the documentation there to support it – such as Pre-Production Approval Processes (PPAPs), drawings and all the inspection and quality data.***

Traceability and accuracy of information

The traceability and accuracy of information that WinMan provides also allows Lander to address areas such as inventory improvement.

Daniel Reily says:

> *"Inventory is certainly the biggest draw on cash for a business like this, so our aim is to have a faster flow of smaller amounts of work in progress (WIP).*
>
> *It is about control, visibility and forecasting, and WinMan gives us that. The more you can refine the system the less slack you need in it and the more confidence you have in your ERP, the less stock you need to hold."*

To assist in the process of constant refinement, display screens around the factory show lists of the individual purchase orders that are going through the plant. These are constantly updated by WinMan to give a real-time report.

> *"By having a better understanding of how much stock we have at each point in the production process you have the confidence to hold less of it. You know exactly what is going out and you can see exactly how much you've got – not just around you on site, but also off at your subcontractors and in transit.*
>
> *We have recently been able to knock down our inventory by a couple of hundred thousand pounds,"* says Daniel.

Conclusion

In conclusion, Daniel says that WinMan facilitates a seamless and lean paperless operation.

> *"You couldn't do this kind of operation without this kind of software and the flexibility to customise it – some of our specific needs you would never get from an off-the-shelf system.*
>
> *What's more, you don't need a vast number of extra planners and accountants when you scale up your workload.*
>
> *To go from £36m turnover to £50m turnover we don't need a huge amount of extra resource – it is very scalable."*

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