Customized Lean Case Studies

Author	Hendrik van Landeghem
Abstract	In today’s constantly evolving and innovating world, competition is also growing. Industries are therefore trying to be as efficient as possible by optimizing their processes and reducing waste. Customers’ demands needs to be fulfilled without keeping them waiting. This case study demonstrates a Lean implementation project in a manufacturing company.
Keywords	Lean, 5S, visual management, standardization, Layout planning, value stream mapping.
Anonym	Nein
Company name	ASSA ABLOY
Company address	Nieuwpoort
Company country	Belgium
Line of business	Fabricated Metal Products, Except Machinery And Transportation Equipment
(Approx.) yearly turnover	1.000.000€ - 5.000.000€
Number of employees	50 - 100
Percentage temporary workers	0% - 5%
Principal range of products	Product types plus customer-specific variants
Major product quantities	Make To Assemble (one-of-a-kind)
Principal type of production organisation	Shop fabrication
Who was the trigger / customer of the project?	Project Manager
Project Type	Introduction of lean production and especially workplace organization and flow, factory layout and workstation design
Lean is already fully established	Not really true
What was or is the main trigger to implement Lean?	Reduction in lead time
Case Study	Case Study: Following goals established for the project: - Instructions and working methods standardization. - Training multitask workers. - Standardize order flows. - Optimize product flows. - Implement 5S. - Manage inventory of components. - Make better use of space. During the project implementation, process maps and spaghetti diagram were designed and following assignments determined or accomplished: - Testing alternatives for laser. - Setting up customers complaints Indicator. - Calculating the number of work desks. - Equipping work desks. - Designing a new layout. - Dividing inventories: fast movers at front, slow movers in the back. - Providing Rack for keys saw machine. - FIFO system for orders. Some of the achieved results are: - Clear status of orders and workloads. - 5S implementation. - Smooth product flow. - Reduction of walking distance.
Top 1 waste	Over-production
Top 2 waste	Inventory
Top 3 waste	Waiting

Starting Situation	- - No or limited work instructions. - - No view on workload, delivery time of orders. - - Unstructured product flow. - - A lot of excess material present at work station. - - A lot of components present on workstation. - - 10 work stations, for max 4 operators.
Evaluation	Here are some outputs of the projects: - Reduction of order lead time from 3 weeks to 48 hours - Reduction of surface area from 101 m2 to 84 m2. - Reduction of work stations from 10 to 6. - Substantial reduction of work in process. Also a to-do list for after the project was proposed: - Centralize and prioritize the orders. - Instead of the components keep unassembled cylinders in stock. - Examining the possibility of electronic data transmission to the laser and key machine.