Drive Continuous Improvement

It isn’t easy to maintain efficient operations in today’s manufacturing environment, especially with everyone looking for a competitive edge. Typical manufacturing plants have multiple vendors, multiple interfaces, complex information flows, and asynchronous processing, all of which can lead to limited visibility into orders, materials, and production. To achieve peak performance, manufacturers must systematically identify and eliminate plant floor inefficiencies.

mcaConnect provides our AX4Lean solutions to companies committed to lean principles and processes who want to run their business using Microsoft Dynamics AX, the leading ERP solution with fully integrated lean manufacturing management tools. Our AX4Lean solutions combine the expert services of mcaConnect with the powerful technology of Microsoft Dynamics AX to offer tailored solutions that provides significant ROI.

Our lean manufacturing strategy requires a four-step cycle of continuous improvement:

1. Value-stream mapping every process, including inputs and outputs, across the entire supply-chain
2. Analysis and modeling identifies tasks that could be simplified or cut altogether
3. Implementation and continuous improvement actualizes change on the plant floor
4. Management and reporting evaluates the results and begins the cycle again

Avoid Pitfalls

Problems can occur when managers, executives, and plant floor workers do not fully understand and support all parts of the lean manufacturing process. Employees at each level must have the information and tools they need to support lean manufacturing, and these tools must work together to integrate and enhance the planning, analysis, implementation, and reporting of the lean manufacturing cycle.

Lean Manufacturing in Microsoft Dynamics AX 2012 can empower your people to successfully implement kanban, kaizen, heijunka-board production leveling, just-in-time operations, and other key tactics by delivering the specific functionality, access to information, and process flexibility demanded by lean manufacturing operations. As an integral part of the familiar and adaptable end-to-end business management solution, Lean Manufacturing in Microsoft Dynamics AX can help you achieve the insight, agility, efficiency, and customer-orientation that enhances profitability and business success.

Key Benefits of Microsoft Dynamics AX for Lean Manufacturing

Microsoft Dynamics AX 2012 supports high mix/low volume lean manufacturing operations, and provides many benefits key to your manufacturing transformation and overall financial success.

- **Achieve demand-driven production** – Improve process flows and reduce waste with powerful tools for production cell organization, sales scheduling, direct production initiation, production leveling and synchronization, and preconfigured materials routing.
- **Increase replenishment efficiency** – Implement production, supplier and/or supermarket Kanban systems for any combination of make to stock, make to order, and traditional manufacturing integration to support you as you transition to lean value streams.
- **Accelerate continuous improvement** – Accelerate process redesign by implementing mcaConnect’s Arteium product, which allows customers to quickly convert their current environment into efficient value streams.
- **Understand value streams, eliminate bottlenecks, and identify improvement opportunities** – Enhance visibility, assess true costs, and provide critical information to those best positioned to make decisions and improve processes.
- **Free people for higher-value activities** – Reduce complexity, save time, and optimize resources by automating routine business processes and eliminating manual handling. Full integration with bar-code and scanning makes electronic completion of kanbans and lean operations fast and error-proof.
Key Features of Lean Manufacturing in Dynamics AX

Sales-Based Scheduling

- Establish takt time and drive production directly from customer orders using sales scheduling over multiple time horizons based on fixed, tentative, and forecast commitments.
- Establish ability-to-supply and automate customer confirmations or order modifications.
- Eliminate handling of physical sales orders with call-off functionality linked to production pull signals.
- Complete configured orders with unique bills and routings using one-time kanbans.

Demand-Pull Production Support

- Invoke production leveling and sequencing tools such as Heijunka boards, constraint loading, and splitting/slotting to improve production flow and accommodate demand spikes.
- Eliminate separate production orders and generate assembly or production schedules right from sales orders, then view schedules from book-to-order or cumulative perspectives.

Kanban Management

- Employ both point-of-use and pull-on-demand Kanbans in production, supplier, and supermarket replenishment systems.
- Set both the quantity and level of Kanbans on a production cell and select from a variety of triggers, including manual reduction, electronic counters, and back-flushing upon work completion.
- Easily monitor Kanban status with at-a-glance visual representations to facilitate flow and minimize buffers.
- Attain full support for out-plant operations with kanbans.

Value Stream Approach

- Define production flows with activities to support flow operations that fully integrate with shop calendars and employee information.
- Support production flows by product family with averages and item-specific exceptions.

Enterprise Integration

- Complete integration with full inventory management, customer service, and financial functions, including full back-flushing of materials and labor.
- Integrate MRP for long-term procurement seamlessly with lean for pull oriented execution.
- Integrate with enterprise engineering systems for master data management.