



Quick Response & Lean Manufacturing



High Mix Low Volume (HMLV) Job Shops need to find a way to satisfy the ever-changing demands of customers who are asking for shorter lead times.

What makes “Job Shops” different?

High Variety Product Mix:

- Frequent “set-ups”
- Variable product “routings”
- Variable process times

Low Volumes of Demand:

- Variable Capacity Loading

What do “Job Shops” (and all companies) need?

- High degree of flexibility
- Excellent information quality
- Ability to capacity plan
- Short lead times
- Outstanding workplace organization

Is this your Job shop?

- Our customers want it all: price, quality and delivery.
- Customers change priorities, cause confusion, add cost.
- We are continually rescheduling orders in production.
- We need to increase sales – competition is fierce.
- We’re unsure about the accuracy of our estimates.
- Our lead times are too long.
- WIP is too high with too many orders on the floor.
- Rework is killing us.
- A psychological wall exists between the office and the floor.
- We seem to have the same problems over and over.
- Set-ups and changeovers take too long.
- We don’t know if we make or lose money on orders.
- We continually ship late.
- Getting accurate information for analysis and decision-making is difficult.
- Cash flow is a concern.

By marrying two proven approaches to continuous improvement, QRM and LEAN, WMEP can help manufacturers survive and thrive in a Job Shop environment. Until now, though, it has been tough for job shops to know how to apply those powerful tools to your special environment.

QRM & Lean approach

Quick Response Manufacturing (QRM) is a companywide strategy to cut lead times in all phases of manufacturing and office operations. It can bring your products to the market more quickly and help you compete in a rapidly changing manufacturing arena. It will increase profitability by reducing cost, enhancing delivery performance and improving quality.

QRM's overarching focus on time (MCT – Manufacturing Critical path Time) as the guiding management strategy is ideally suited for companies offering high-mix, low-volume and custom-engineered products. In fact, many companies making highly customized products and/or a high variability in their product mix have used QRM as an addition to existing Lean, Six Sigma, and other improvement efforts.

In fact, QRM builds on the foundations of strategies like Lean and Six Sigma. It enables your company to be more competitive in manufacturing custom-engineered products in low or varying volumes with high quality and short lead times.

QRM enables organizations to exploit strategic variability and compete in markets requiring high levels of customization. Building on Lean's focus on dysfunctional variability, it takes the strategy to the next level.

Lean Manufacturing

A systematic approach to identifying and eliminating waste (non-value-added activities), Through continuous improvement by flowing the product at the pull of the Customer in pursuit of perfection.

- Lean Manufacturing is an operational strategy oriented toward achieving the shortest possible cycle time by eliminating waste.
- It is derived from the Toyota Production System and its key thrust is to increase the value-added work by eliminating waste and reducing incidental work.
- The technique often decreases the time between a customer order and shipment, and it is designed to radically improve profitability, customer satisfaction, throughput time, and employee morale.
- The benefits generally are lower costs, higher quality, and shorter lead times.
- The term "lean manufacturing" is coined to represent half the human effort in the company, half the manufacturing space, half the investment in tools, and half the engineering hours to develop a new product in half the time.

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