



Design for Manufacturing

Very often new products are released for production that are not ready for the factory. They can only be made to work in the prototype lab when models are built and adjusted by highly skilled technicians. Effective product development must include management practices that consider *customer needs*, design those requirements into the product, and then ensure that both the *factory* and the *suppliers* are able to effectively produce the product. Jacquard's Design for Manufacturing Profit Project® addresses quality, communication, and component issues, ensuring that products are manufactured in a reliable, cost-effective, and timely manner.

Experiences

- DFM can cut the time to market by as much as 50%
- Having a clear communication plan between the customer, engineering, manufacturing, and suppliers can dramatically reduce errors
- DFM significantly minimizes production costs and investments

Principles

- Reduce the number of components that make up the final product. This lowers the opportunity for assembly errors, decreases the total cost of fabricating and assembling the product, and improves the chance to automate the process
- Employ Poka-Yoke* principles in the assembly process
- Make every effort to utilize common parts & materials
- Design within the production process capabilities
- Communicate tirelessly: the design team should gather input from customers, suppliers, engineering, and production

Goals

- Reduce time-to-market
- Minimize operations costs
- Minimize operations investments
- Reduce errors

Subprojects

- (needs detail)
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* Poka-Yoke is Japanese for mistake-proofing. A poka-yoke device is any mechanism that either prevents a mistake from being made or makes the mistake obvious at a glance.

Jacquard's Profit Projects™

- Straightforward, proven and universally applicable
- Focused and customized to a company's unique needs
- Easily understood by all employees
- Takes only 16 weeks to complete

Measurements

- Time-to-Market for new product lines
- On-time performance
- Operations Costs (i.e. direct labor, cost or rework)
- Investment of inventory
- Customer Satisfaction (quality and delivery related)

Deliverables

A formal standard repeatable process that provides ...

- Short Time-to-Market for new product lines
- Accurate & timely communication among the key players: suppliers, manufacturing, engineering, and customers
- Reduced waste

" Research has shown that decisions made during the design period determine 70% of the product's costs while decisions made during production only account for 20% of the product's costs."
Source? (is this really a quote?)

What they do for you ...

- Improve customer delight
- Build greater market share
- Increase profitability and cash
- Strengthen leadership
- Align people with company goals