

Marketing & Engineering Solutions Supply Chain Innovations for Manufacturers

The proliferation of customization for the consumer is creating an explosion of new products and product “versions”. Products no longer maintain a sufficient shelf life before a new version is necessary and supply chains struggle to manage requirements of fickle consumer demand. MES has developed a global supply chain system that provides complete outsourcing of supply chain management including supplier selection, quality management, warehousing and JIT shipments supported by state of the art IT systems. And their solution is specifically engineered to support those products with a short life cycle and lower volumes, freeing Supply Chain Directors and VPs to focus on core, high volume products.

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using our IT and data
analytics systems**
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Per Hiten Shah, President, “We think there are three important metrics in supply chain - the On-Time Deliveries (OTD), the quality Parts Per Million (PPM) rejects, and Inventory control.” MES focuses on on-time deliveries and quality PPM as the two metrics that are the differentiators. Quality PPM is based on the supplier selection process; custom built automation, and their Advanced Product Quality Planning process or APQP. First, the supplier selection

process is overseen by a corporate engineer/auditor who applies a global lens to ensure supplier standardization. MES’ second competitive advantage is their custom-built automation that integrates with their SAP ERP and MRP systems. Every factory and warehouse is equipped with the ability to manage supply and inventory from a smartphone through apps built by MES for iOS and Android phones. The engineer can log in and take pictures of parts, production or problems and log those pictures as updates, which are integrated with inventory attributes through SAP. The data is then electronically provided to selected management staff almost immediately to keep them informed of the status of operations and customer fulfillment. MES third tool is their APQP process which supports strategic planning and tracking of development, testing and launching of a new product. All data is stored and monitored in their in-house system which tracks quality issues including supplier selection, quality, audits, and reporting from the factory for the entire project life cycle. MES has even added their own R&D shop to help customers with prototyping, which now represents more than 10 percent of sales. Through the integration of their SAP ERP and MRP systems, MES has end-to-end visibility of their inventory, warehouses in transit, suppliers, and orders and ensures 360 transparency through a portal built especially for their suppliers.

A case study of success is a custom solution developed for a large customer machining copper rods in-house that required 99.995 percent purity. The in-house process was complex and expensive, but MES accessed their global network to develop a different forging



process. Through supplier sourcing that covered four different raw material suppliers in Europe, China and India, and three different fabricators in India and China, MES developed a new operation and reduced their client’s costs by 30 percent.

In their future, Shah sees Europe and Mexico as their next expansion. Per Shah, “We are leveraging our trading and finance infrastructure in Hong Kong, China, and India to sell into Europe and Mexico regions that have grown phenomenally from zero percent in 2013 to just under 50 percent of our sales this year,” says Shah. “We deal in age old industrial commodities such as castings, forgings, injection molded parts, rubber components and copper components. However, our supply chain solutions are built around strong IT and data analytics systems. The heart of efficiencies we have, are derived from the dedication of our people and effectiveness of our systems,” he concludes. [CR](#)