The top 5 ways to meet customer expectations in MTO and ETO manufacturing

Henry Ford famously said, “Any customer can have a car painted any colour that he wants so long as it is black.” While this might have worked for 1920s automobile production, this cookie cutter, assembly-line mentality doesn’t work for today’s manufacturing. The products customers are buying need to be configured in very specific ways to do very specific jobs.

According to IDC Manufacturing Insights:

“IME organizations supply their clients through make-to-order (MTO) or engineering-to-order (ETO) production models. Orders are typically managed around custom contract specifications. No deal is standard and the number of reusable parts is often limited.”

So whether a manufacturer’s product line is MTO or ETO, manufacturers and customers need to work closely together to meet the customers’ specifications. Often this includes the manufacturer acting as a trusted advisor—steering customers toward optimal designs, and products well suited for their specific application. The manufacturer’s knowledge and experience can help customers meet their needs.

Only a modern ERP system that’s designed specifically for manufacturing and that integrates with social business collaboration, financial, quality control, and demand planning tools can keep track of all the moving pieces.
1. Improve collaboration

Real-time collaboration and data sharing foster greater cooperation between engineers, suppliers, and production teams—essentially bringing together departments that often operate in organizational silos. This can help speed up the entire product development cycle—from creative brainstorming all the way through costing, testing, and production. For example, teams can use collaboration tools to confirm configurations, specifications, and model numbers, as well as to ensure that the correct component versions are used during assembly. With real-time collaboration, workers can get questions answered immediately, avoiding potential delays.

Manufacturers can further increase efficiency and speed up decision making by collaborating directly with customers during the product development process. For instance, by getting notification of specification changes as soon as they happen, manufacturers can minimize the need for rework and retooling. And by tracking decisions made during the collaborative process, it’s possible to determine who made key decisions that impacted design and production outcomes, which is especially important for traceability and protection of proprietary designs. Tracking these decisions means that it’s also possible to build a knowledge bank of valuable historical data for future projects.

By integrating a social business collaboration system with an organization’s existing applications, workers can easily share data, files, and even what’s on their screens with coworkers and customers. The simplicity and ease of use of such a system means that workers are far more likely to take advantage of collaboration tools because these they don’t further complicate the process.

2. Deliver high-quality aftermarket service

A large part of what makes manufacturing so complex is the sheer quantity and variation of components and configurations. Most older, generic ERP systems can’t keep track of such intricate operations. An advanced ERP system that’s designed specifically for manufacturing, however, can easily manage all these parts and configurations.

Being able to effectively manage the vast quantity and variety of components and configurations helps manufacturers deliver high-quality aftermarket service. With complete visibility into MTO and ETO product components and configurations, manufacturers can ensure that they send out technicians who have the necessary and relevant training, certifications, and experience for specific products. By making sure that the right person is always sent out for the right job, manufacturers can improve first-call resolution rates, speed service, and keep critical machines running. This also helps increase customer satisfaction and build customer loyalty.

To successfully deliver aftermarket service and potentially expand their offerings, manufacturers also need processes and systems that support aftermarket capabilities, such as:

- Installations
- Calibrations
- Preventive maintenance
- Extended warranties
- Tier-level service agreements
According to IDC Manufacturing Insights:

“In order to capitalize on the services opportunity, however, manufacturers need to put in place new organizational structures, processes, and tools that support services-based business models that significantly differ from traditional industrial equipment business practices.”

With the right systems in place, manufacturers can generate additional revenue and strengthen customer relationships through aftermarket service support.

3. Track your complicated financials

Tracking every financial element of production to maintain margins is particularly complicated in such a vast, complicated manufacturing environment. With a fully integrated, end-to-end system that includes financial analytics, manufacturers can quickly and easily determine the costs of production and assembly, as well as the resulting profitability of customer contracts and aftermarket service agreements. With full system visibility, manufacturers can accurately evaluate warranty and maintenance agreements when they come up for renewal and pinpoint areas of waste or where service agreements need to be adjusted to more accurately reflect costs.

These capabilities, however, appear to be lacking for most manufacturers today. KPMG reports that only 12% of manufacturers “consider themselves to be very effective at determining their profitability.” Without detailed financial tracking and analysis, manufacturers can easily get caught in a cycle of costly parts replacements and on-warranty maintenance calls, which can erode profits.

4. Implement robust quality control

Those profits will erode even further, if manufacturers aren’t able to build products that meet their customers’ precise specifications. Everyone within an organization must shoulder the responsibility for quality. So, personnel throughout an organization—from line-of-business managers to engineers and technicians—need access to critical data and the ability to monitor real-time status of production, resources, and parts availability. With access to the necessary quality control tools, quality management becomes an intrinsic part of everyone’s daily routine, which helps improve an organization’s overall operational performance.

Manufacturers need a system that supports the quality activities of more than just the manufacturing process; they need a system that also manages advanced quality activities across the entire enterprise for receiving, shipping, returns, and aftermarket service. With the right quality management system and processes, organizations will have the framework in place for building a culture of continuous improvement throughout the enterprise.

Whether a manufacturer’s product line is MTO or ETO, manufacturers and customers need to work closely together to meet the customers’ specifications.
Manufacturers also need to make sure that everyone within an organization is aware of the financial and liability risks that can stem from non-compliance issues. By using a quality control system to help execute a compliance strategy, manufacturers can help ensure that quality and safety requirements and guidelines are met (including all relevant ISO, IEC, OSHA, and regional standards). Manufacturers can help fortify their compliance strategies and improve their compliance capabilities when they use a system that gives them the tools to automate scheduling, standardize processes, and establish controls across the enterprise.

5. Accurately plan

No matter how well a manufacturer executes quality control or keeps track of all its components and configurations, the success of its production, inventory, distribution, and procurement strategies are ultimately dictated by its ability to accurately predict demand.

Because of the high capital investment of parts and material used in manufacturing, an error in planning can result in a significant disruption in cash flow. An accurate picture of customer demand serves as a solid foundation for a sales and operations (S&OP) plan that can help the manufacturer create a fully synchronized demand-replenishment plan. Improving forecast accuracy is typically the fastest way to reduce inventories and improve customer service metrics.

Manufacturers need a demand planning system that provides tools to manage their total demand and distribution replenishment process. With the right planning, forecasting, and scheduling tools, they can improve their ability to understand market demands, see further down the supply chain to better predict market needs, and fulfill customers’ changing needs more quickly.

Bring it all together

To say that manufacturing involves a lot of moving pieces is an understatement. Not only are the products that are being manufactured complicated, so is managing all the related business processes. Only a modern ERP system that’s designed specifically for manufacturing and that integrates with social business collaboration, financial, quality control, and demand planning tools can keep track of all those moving pieces. With the right systems in place, manufacturers will have the tools they need to meet customer expectations.