

Make-to-Order

Driving growth through greater visibility and insight

Contents

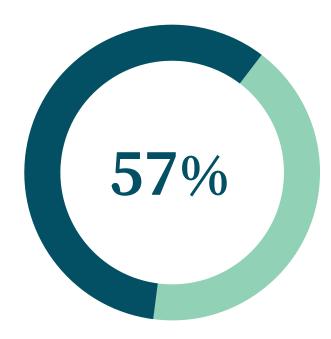
Embracing the Future of Make-to-Order Manufacturing	. 3
5 Trends in MTO Manufacturing	. 4
Optimizing the Customer Experience	. 8
Maximizing Operational Efficiency	. 9
Driving Growth and Profitability	12
The Smart Way Forward for MTO Manufacturers	13

Embracing the Future of Make-to-Order Manufacturing

Make-to-order (MTO) manufacturers operate in a dynamic landscape where a number of trends—new and old—are shaping the future . You need to keep pace with these changes and take advantage of them—or risk falling behind.

In this eBook, we introduce five of the key trends. We also look at how an enterprise resource planning (ERP) solution can help you address them by delivering greater visibility and insight. As a result, you'll be able to:

- Deliver a great customer experience
- Make operations as efficient as possible
- Drive business growth and profitability



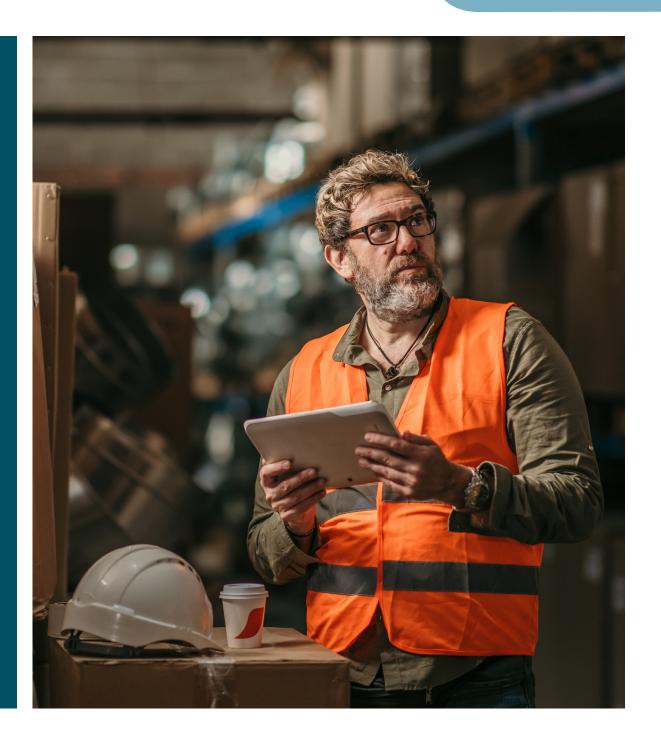
57% of manufacturing is expected to be engineer-to-order (ETO) or assemble-to-order (ATO) because of increasing pressure to meet customer demand¹

¹ IDC Manufacturing Insights, 2017 Predictions



5 Trends in MTO Manufacturing

MTO manufacturers must profitably address a "market or lot of one" with a customized product. As several overlapping trends reshape the landscape, a big question looms for MTO manufacturers. Will you struggle with increased competition, or will you take advantage and become more competitive?



1

Mass customization

The techniques of mass customization can overcome many of the issues associated with a lot size of one. Combining personalization with the low unit cost of mass production can help you meet customers' needs and stay profitable. To succeed, you'll need flexible work processes and the technologies essential for mass customization.

2

Lean manufacturing for waste control

Research shows 60 percent² of activities in a typical manufacturing operation are waste. Adopting practices like lean manufacturing can help you control this waste so you can manage costs and preserve margins.

3

The Amazon effect

Business buyers expect the same online purchasing experience as consumers. They want to research, order, and configure their items online—and they want full visibility into shipping and delivery status. Only an advanced MTO business can support this level of self-service and transparency.

4

Globalization

Globalization can grow market share and revenues—but it also increases competition. Products must outperform global competitors on both price and quality—and meet the local regulations of each new market. MTO manufacturers need a "global" level of visibility that covers both the supply and demand chains.

5

Digital transformation

Digital transformation is accelerating these trends in every area of business. For MTO manufacturers, as for all manufacturers, wise investment in new technologies is the key to:

- Increasing efficiency and visibility
 - Achieving insights that translate into smart decisions and action

² Lean Enterprise Research Center, www.leanproduction.com

The role of ERP

Responding to these trends depends on visibility and insight across your business and its value chain. Thankfully, that is precisely what an ERP system offers. This guide will help MTO manufacturers choose an ERP solution that will give you the visibility and insight to:

- Deliver a great customer experience
- Make operations as efficient as possible
- Drive business growth and profitability



Variations on MTO manufacturing

In MTO manufacturing, the business manufactures customized products once they receive an order. Many manufacturers handle one or more variations, including:

- Assemble-to-order (ATO) or build-to-order (BTO)— manufacturers stock basic parts or assemblies to fill customer orders
- Configure-to-order (CTO)—this approach is like ATO and BTO, but the buyer specifies the components that make up the product.
- Engineer-to-order (ETO)—the business designs and manufactures one-off orders for customer- specified products.
- Custom manufacturing—the manufacturer makes standard or custom products just in time to meet shipping dates.

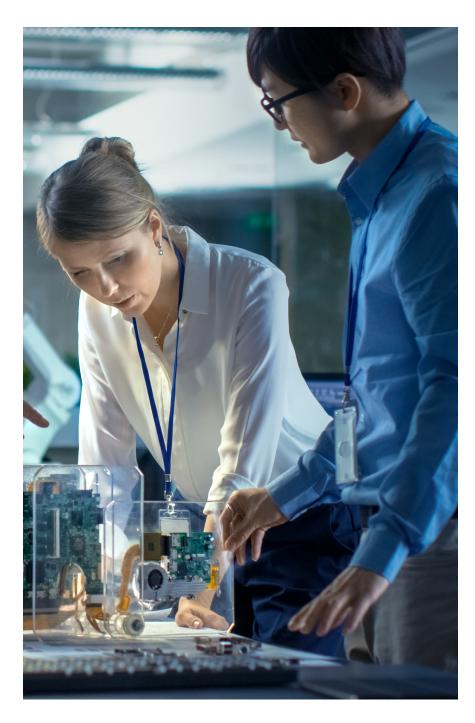
Questions to ask potential providers

- Does your solution have mobile functionality that supports all roles and tasks?
- Can your employees access customer and order status information in one place?
- How easy is it to give customers control through secure self- service functions?



"Epicor Kinetic is one of the cornerstones of our digital transformation strategy. Since implementing Kinetic we have increased business efficiency and productivity."

Tiefeng Guo, IT Director | OnOff Electric Co.



Optimizing the Customer Experience

Smart manufacturers understand that buyers of MTO products have high expectations Customers want an experience that's as easy as any other online store.

Putting customers first

Customers want to be in control.

Whether researching options or placing orders and tracking progress, customers want manufacturers to provide the information they need at any time. To do this, you'll want an ERP solution that offers:

- Customer relationship management (CRM) integration
- Support for mobile working
- Web capabilities
- Integrated CRM

Look for an ERP solution that integrates CRM capabilities to provide a 360-degree view of every customer relationship. That way, you can put the customer at the center of your business—and enable easy access to enterprise data for efficient responses to requests and queries.

Support for mobile working

An ERP solution that works on any device will let your people respond to customers wherever they are—at home, on the factory floor, or traveling. Mobile capabilities add agility and responsiveness to formerly desk-bound or manual jobs. They help you serve customers with instant access to scheduling, inventory, and quoting tools.

• eCommerce capabilities

Respond to the Amazon effect with an ERP system that enables eCommerce for your business. You can easily enable customers to configure, place, and track orders themselves. You'll also gain insight into customer purchasing behavior, so you can modify your offer or have sales teams follow up in person.

Maximizing Operational Efficiency

In the highly competitive MTO market, investing in an ERP solution helps ensure operational efficiency.

Optimizing capacity

Your business needs a clear view of capacity and accurate capable-to-promise calculations. To be successful, you'll want an ERP solution that:

- Simplifies scheduling
- Provides visibility and insight into operational capacity and activity
- Incorporates tools to maximize productivity and throughput
- Planning and scheduling

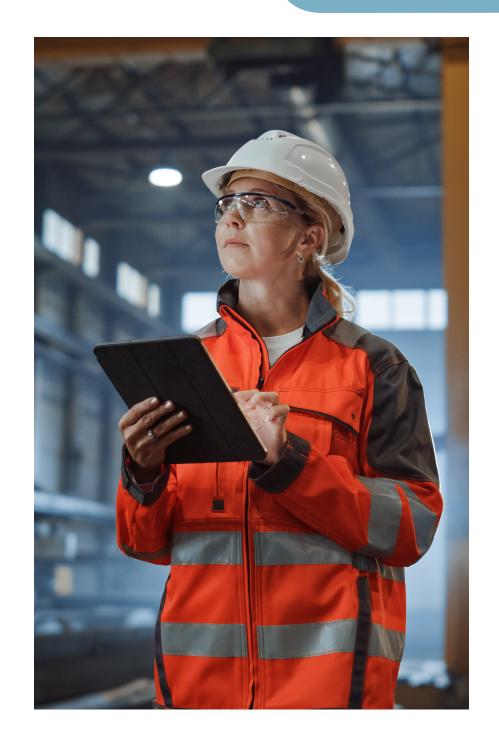
To maximize throughput, you must boost machine efficiency and run times, and correctly sequence raw materials. You can't afford to rely on disparate, disconnected tools. Instead, choose an ERP system that helps you manage production schedules, whatif scenarios, and constraints.

Operational insight

You'll often have many orders in production at once. Understanding whether you'll meet your delivery dates depends on knowing the real-time status for each order. Look for an ERP system that shows you how individual orders are moving through the factory. It should provide insight into machine performance and usage so you can address issues or adjust workflows.

Productivity and innovation

Choose an ERP solution that helps people be more productive. You'll want an easy-to-use interface, personalized work queues for "what's next," and mobile access to information. Increase productivity by choosing a solution that promotes collaboration through social networking tools.





Questions to ask potential providers

- Does your ERP solution incorporate manufacturing-centric tools for planning and scheduling?
- What real-time analytics are available for day-to-day operational visibility and insight?
- 3 Is it easy to integrate communication functions into dashboards and other everyday ERP functionality?

"Epicor is the whole foundation of the operations part of our business from finance, customer service, supply chain functions, and manufacturing to support the business globally. Customer service experience improved significantly."

Jeff Knowler, Chief Operations | Steel Blue

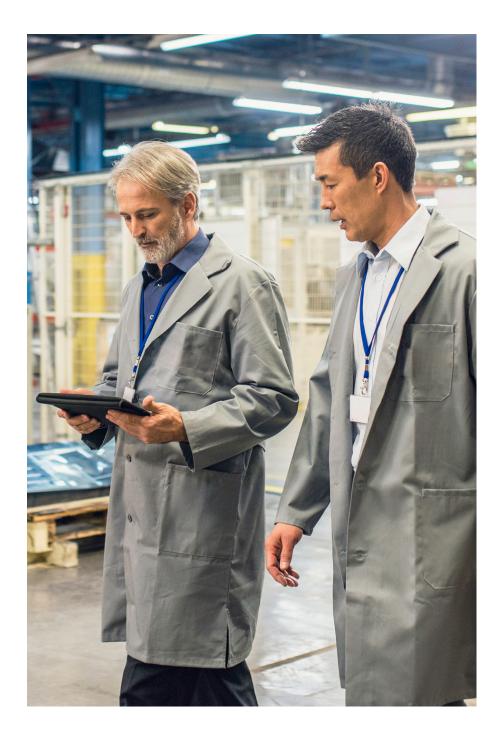
Questions to ask potential providers

- Does your ERP solution incorporate comprehensive estimating functionality, including the ability to quote for highly customized orders?
- Does your ERP system help MTO manufacturers develop a responsive supply chain that reduces inventory requirements?
- 3 Is work-in-progress inspection capability built in to your ERP system?



"The advantage was accessibility. We no longer have to manage the overhead of our databases. That's all managed through Epicor and the transition went smoothly. We had a handful of super users, so they trained their departments. It took four to six weeks to transfer over-it was very quick."

Kevin Eliasson, ERP Manager | Mueller Custom Cut



Driving Growth and Profitability

74 percent of manufacturers say that growth is a high or extremely high priority for their organization³. Ensuring profitability when you're manufacturing in response to customer orders—rather than to meet product forecasts—requires effective cost management

- Accurate, agile quoting
 Quoting too low for a customized
 product can lead to cost overruns and
 decreased profit margins. Quoting
 too high risks loss of business to a
 competitor. If your ERP system offers
 quoting and estimating—including
 the ability to quote parts without
 inventory numbers—you can build
 accurate quotes to win more bids and
 maximize margins.
- Supply chain integration
 Since MTO production doesn't start
 until a customer confirm an order,
 it's vital to keep inventory low. An
 ERP solution that can integrate your
 supply chain lets you quickly procure
 raw materials when you need them—
 reducing stock and freeing up capital.

Optimizing low-volume production

To help manage the cost of producing high-quality products in low volumes, choose an ERP solution that provides the visibility you need to:

- Quickly identify and fix quality issues during production—avoid extra costs and overruns that shrink profits
- Identify opportunities for improvements that lower production costs

³ KPMG Global Manufacturing Outlook 2016

The Smart Way Forward for MTO Manufacturers

The most successful MTO manufacturers will harness the trends currently shaping the industry to grow their business.

The power of digital transformation

It's no surprise that digital transformation is one of the key industry trends. MTO manufacturers that don't transform their work processes and methods will struggle to keep up.

Digital transformation helps MTO manufacturers gain visibility and insight. You can optimize the customer experience, increase operational efficiency, and drive profitable growth. It also enables you to build a foundation for the future—positioning you to take advantage of advanced technologies when you're ready, such as:

- The Internet of Things (IoT)—opening new windows of visibility into the manufacturing process
- Advanced analytics—for better and more informed decision-making
- Cloud-based capabilities—enabling real-time visibility, improving information access, and enhancing collaboration

"Epicor has become an essential part of our business operation infrastructure. We believe this will enhance client trust and confidence in us and propel our business growth."

Zulkifli Kasim, President | Crusk Assemble



The role of ERP

Investing in the right ERP software will help you drive the long-term success of your digital transformation program.

Epicor Kinetic is the result of more than 50 years of working with manufacturers. Unlike other generic ERP solutions, we built Epicor Kinetic to fit the ways manufacturers work. It supports single-site, multisite, and global operations.

It also integrates with other solutions to deliver new levels of collaboration, visibility, and results.

Epicor Kinetic software is cloud-ready. You can use Epicor Kinetic on a software-as-a-service (SaaS) basis or deploy it as a hosted solution. That means you can start experiencing the benefits of a cloud model now, and migrate when you're ready.





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