

Industry Training – Industrial Machinery Manufacturing

Industrial machinery manufacturers produce industrial and commercial machinery and equipment. In this introductory course, we'll review some key segments and characteristics of industrial machinery, look at the features and functionalities in Epicor Kinetic that address industrial machinery manufacturers' needs and talk about how we differentiate ourselves from the competition. Then we'll take a peek at some customer stories and learn where to go for more information about industrial machinery.

Select a tab from the top of the screen to get started.

Objectives

- Segments and Characteristics
- How We Win/Why Epicor is a Good Fit
- Customer Stories
- Resources

Segments and Characteristics

Industrial machinery manufacturing uses raw materials to make machinery and countless other products. It is one of the largest and most competitive sectors of the U.S. manufacturing economy.

Different types of manufacturers cater to different industries.

And, just like any industry, industrial machinery manufacturing is always changing.

Use the buttons on the left to get a better understanding of the different types of industrial machinery manufacturers, look at some industrial machinery-specific terms, and the current industry outlook.

Then, when you're ready, use the tabs at the top to continue

Types of Industrial Machinery Manufacturers

Industrial machinery manufacturers engage in the fabrication of industrial and commercial machinery and equipment for numerous industries, including:

- Engine and turbine manufacturing
- Farm and garden machinery
- Construction, mining, and oil field machinery
- Elevators and conveying equipment
- Hoists, cranes, monorails and industrial trucks and tractors
- Metalworking machinery
- Special industry machinery
- General industrial machinery

- Refrigeration and service industry machinery

Manufacturers, regardless of industry, range from small, highly specialized manufacturers with highly customized limited product lines to larger companies with one or more sites.

Industrial Manufacturing Terms

Industrial manufacturing is a highly technical industry. The following introduces some industry-specific terms.

Flexible manufacturing systems are essential to small-batch production for mass customization profitability. In addition to standard production process, several industries invest in dynamically programmable robotics with interchangeable tooling that can switch agilely between models and variants.

Concurrent Engineering runs product development stages parallel to each other rather than one stage followed by another. This reduces lead times and costs.

Product Lifecycle Management (PLM) manages the entire lifecycle of a product from inception, through engineering design and manufacturing the final product, to servicing those manufactured products.

Product Modularization uses modules or manufacturing sub-systems to create, upgrade and develop products mostly along multiple production lines, or a single product line offered in various configurations. This brings significant cost reductions, reduces time to market significantly, while offering the customers required personalization.

This means that companies can slash their product development and material costs, and facilitate optimization of the total product cost by:

- Increasing potential for product variety
- Enabling faster product development and upgrade
- Improving time-to-market, as well as aftermarket and service support
- Allowing continuous product and market improvement

Industrial manufacturing is a broad term that covers several different industries and processes. This is just a sampling of terms. For a more detailed list of terms, see the Industrial Manufacturing Glossary attached to this course.

Current Outlook

Industrial machinery manufacturing is always changing. New technology is driving a lot of that change.

Automation in manufacturing isn't new, but the widespread adoption of the practice is. New technologies in the plant make automation more accessible to more and more manufacturers. This is changing the way companies operate.

Likewise, equipment connections to the Internet of Things (IoT) helps manufacturers monitor their operations from reducing the cost for maintenance to cutting unplanned outages by half.

Using smart sensors and the cloud, IoT is really driving every aspect of manufacturing by allowing manufacturers to connect to and monitor their operations.

Industrial equipment can be large and expensive, not to mention the maintenance it requires to keep it running properly. This, and the space needed to store equipment is driving customers to move away from buying

equipment to renting. Leasing is more cost-efficient for customers that may only need a piece of equipment for the short term.

Like most industries, industrial machinery is ever-changing. New technology and new ways of getting equipment to customers drives industrial machinery manufacturing into the future.

How We Win/Why Epicor is a Good Fit

Industrial machinery manufacturing provides essential technology to other industries. These manufacturers need a solution that caters to their every need. Epicor's ability to compete and thrive in that market relies on the expertise and experience built into our solutions.

Use the buttons on the left to get an overview of some of the features and functionality built into Epicor Kinetic that make us a go-to product for industrial machinery manufacturers, see some of Epicor's competition and how we differentiate ourselves from them, and experience our strength in the market.

Then, when you're done, use the tabs at the top to continue.

Epicor's Capabilities

Epicor Kinetic is an end-to-end solution for manufacturers. Let's look at how Epicor meets industrial machinery manufacturing business needs, starting with the **complex estimating and quoting process**. When creating quotes, low estimates result in cost overruns and decreased profits. High estimates, on the other hand, can result in being outbid by competitors and loss of business. By looking at all the different components and processes, Epicor is able to provide the most accurate manufacturing quotes.

To better aid in the quoting process, Epicor Kinetic allows for **parts on the fly**, which means that manufacturers can estimate the cost of a part without needing an inventory number and include that cost in the quote.

Epicor Kinetic's comprehensive **engineering change and revision control** leverage the engineering workbench to better track engineering changes and approval workflows. It supports multiple revisions, ensuring that the BOM and routing of the product is not frozen at order entry. The added visibility of engineering changes makes the implementation of these changes timelier and more efficient, all while reducing cost overruns, late shipments, extra inventory, and quality defects.

Engineering changes inevitably come with cost changes. Epicor Kinetic captures these **cost changes**, which are then reflected in the final cost of the product. It also eases manufacturers' ability to monitor and analyze engineering rework and associated costs resulting in controlling the cost of engineering changes. What's more is, this added layer of visibility of cost of design updates when changes occur. This means that the design engineer can consider alternative, more cost-effective product structures or cut ins.

Speaking of engineering, all industrial manufacturing requires planning, time, and resources. Epicor Kinetic's **Advanced Planning and Scheduling** provides capability-based scheduling that then defines multiple resources needed to ensure that a project is completed accurately and efficiently. It automatically schedules all the appropriate resources at the right time, and allows for rescheduling within a job or project, making it flexible.

Epicor's cloud deployment means that manufacturers with multiple sites have access to all their data regardless of location, including financials, purchasing, global customers, parts, and suppliers. That doesn't mean that each plant is limited to one set of processes. Each plant maintains their own alternative BOMs, routing scheduling, and so on.

This is just a handful of features and functionality built into Epicor Kinetic. These and more help industrial machinery manufacturers' operations running smoothly and efficiently.

Differentiators & Competition

It goes without saying that Epicor has competition. There are countless software solutions for every industry. Let's look at some of our top competitors, see what they have to offer, and talk about how we compete with them.

The Infor SyteLine solution from Infor CloudSuite provides manufacturers with core project management functionality, as well as engineer-to-order product accounting. Infor SyteLine also includes product data management or PDM.

These capabilities don't set Infor SyteLine apart from Epicor. Our solution is also strong in those areas. We have a focus on comprehensive engineering change and revision control, meaning that manufacturers can track engineering costs, manage orders, and generate bills of materials.

Formerly MS Dynamics AX, MS Dynamics 365 separates financial and operations into two applications. This capability makes their product flexible in that manufacturers only need to purchase and implement the products that they need when they need them. As you heard earlier, the trend for customers is shifting from purchasing to renting. MS Dynamics 365 does offer a strong rental and leasing module; however, it is a third-party add-on product.

Epicor Kinetic provides easy-to-use pricing, including pricing parts on the fly. For industrial machinery manufacturers, this means that they can create the most accurate quotes for their customers while increasing their profits. What's more is Epicor Kinetic is a full end-to-end solution, meaning that everything manufacturers need is right there in one solution – no need for numerous, costly partner plugins.

IFS offers strong project management and project manufacturing capabilities. Their robust Maintenance, Repair, Overhaul (MRO), and Field Service capabilities meet many of the needs of maintenance, repair, and engine overhaul manufacturers.

IFS is a serious competitor but doesn't have the same functionality as Epicor Kinetic. Our business process management functionality really sets us apart, including automated approvals capabilities. We streamline the processes for all industrial machinery manufacturers, not just a select few.

Oracle JDE has strong Project management functionality. What's more is, similarly to MS Dynamics 365, they also offer a rental and leasing module. Functionality aside, Oracle comes with high costs.

Oracle JDE is very feature rich product, but is an older more cumbersome solution. In contrast, Epicor Kinetic uses state of the art technology, and is designed with the manufacturer in mind. This makes it easy to use and personalize.

Like other offerings, SysPro has comparable Project Management capabilities. They do not, however, include Product Lifecycle Management (PLM) and their quality control is third-party.

SysPro's project management capabilities don't set them apart from Epicor Kinetic; our solution is strong there too. In addition to that, Epicor Kinetic includes powerful product lifecycle management, customer relationship management, and quality control functionality. We also have a cloud-first mindset, use the latest technologies, and are always expanding and improving our manufacturing capabilities.

Experience and expertise are built into Epicor Kinetic, keeping it ahead of the competition.

Sales POV

With all the competition out there, how does Epicor continue to have such great success? It's through our industry expertise and our ability to address the concerns of industrial machinery manufacturers.

Customers guide our products and everything we do, including Epicor Kinetic. In fact, we have customer and product advisory boards that provide valuable input on product features, usability, and functionality, and advise us on industry priorities. Epicor connects with our end users onsite. Through our ideas portal, in-app feedback, product surveys, user groups, and online forums, we're always connected to customers in the industrial machinery industry and incorporate their product feedback, best practices, and recommendations into Epicor Kinetic.

Even with the ever-changing industry, industrial machinery manufacturers remain optimistic and have a positive outlook – this means continued growth. Epicor Kinetic gives Industrial Machinery Manufacturers an edge to remain successful in the increasingly complex industry by providing access to potential accounts, adding more product lines, expanding geographical coverage, and speeding up sales-cycles. All of this helps lower customer support costs, add more services to attract and keep customers, and increase export sales (exports account for 35% of US production).

There is a lot of competition in the industrial machinery industry. Epicor is an industrial machinery manufacturing-focused company that imbeds best industry practices in its software solution.

Our user interfaces are easy to use and provide personalized work queues for what's next, all with fast, mobile access to business information. Manufacturers are better able to manage the specialized Quote to Cash processes required to support machinery manufacturing. This means that our customers can compete with low volume-based competitors and ever-narrowing margins by increasing productivity and process efficiency.

A big part of growth and productivity are customers. In the increasingly customer-oriented industry, manufacturers differentiate their business with consistency and on-time delivery of quality products that meet their customers' needs. They need a solution that lets them engage and understand customer purchasing behavior and manufacture custom products within customers' cost and schedule needs. Enter Customer Relationship Management. CRM helps manufacturers understand their customers and stay engaged with them which is important because their customers are often other manufacturers and, as we all know, word of mouth is key to success.

In short, Epicor listens and delivers to customers in a way that promotes the manufacturers' business through a focus on growth, productivity, and customers.

Customer Stories

Industrial Machinery manufacturers are using Epicor Kinetic to advance their business. Scroll through to see what some of them are saying. Then, when you're ready, use the tabs at the top to continue.

Keumyong Machinery

Keumyong Machinery had an outdated legacy system that lacked data management tools and sharing between two diverse business departments

"I have great confidence that the implementation of Epicor ERP will boost production. Of all the advantages the Epicor system brings, what really stands out is how user friendly it is and the effectiveness of the onsite training provided by Epicor after the implementation." – Jun-Hyuk Lee, Executive Vice President

“Via the Epicor ERP platform, we were able to identify internal problems we would otherwise never have known about. Our previous system was structured in organizational siloes, impeding data sharing among teams. With the help of Epicor consultants, we first organized the master data. Then, systematically, we created an integrated workflow by connecting all tasks into one system. Now, we have established a solid ERP platform which enables us to reach our production goals.” – Sung-Hoon Baek, ERP Manager

FARAD S.A. Heat Exchangers

FARAD S.A. Heat Exchanges designs and manufactures high-quality marine and industrial tubular heat exchanges. This challenging and fast paced market is highly regulated and requires high quality products on demand.

Production planning within Epicor ERP provides FARAD with an accurate, real-time view of their manufacturing process so they can proactively manage their operations with confidence. Embedded business process management provides the flexibility they need to drive production costs down, deliver products at specified quality levels and meet schedule commitments.

“Epicor ERP has automated our processes and improved production planning thus helping us gain a competitive advantage.” – Vangelis Fanouriadis, Co-Owner and Production Manager

“Regardless of the production model, ATC and Epicor ERP can provide a personalized and scalable integrated solution that helps users gain focus on planning and managing resources, both within and across location and company boundaries.” – Stelios Koutsoukos, Sales Manager for ATC

Baxter Manufacturing

Baxter Manufacturing had a dated ERP system that lacked the flexibility to accommodate the business' fast pace

“With other vendors we spoke to, we couldn't even get a user's manual, which to me says a lot about a company. Epicor came in with a lot of resources— between Epicor University, knowledge training, embedded training, and the Insights conference—to not only help us learn in the beginning, but also to keep up with changes, train new users, and refresh people.” – Jack Pennypacker, Network Administrator

“While managing multiple locations can be a challenge, Epicor reduces the complexity by allowing us to increase production capacity without operational issues.” – Steve Staton, Controller

Resources

This course provided an overview of industrial machinery manufacturing. For more information on this topic and manufacturing, please review additional resources available on [Epicor Learning Center](#), online help articles available from within the product, the [Epicor website](#), and, if you have access to it, the Spark Marketing Resource Center.

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About Epicor

Epicor Software Corporation drives business growth. We provide flexible, industry-specific software that is designed around the needs of our manufacturing, distribution, retail, and service industry customers. More than 40 years of experience with our customers' unique business processes and operational requirements is built into every solution—in the cloud, hosted, or on premises. With a deep understanding of your industry, Epicor solutions spur growth while managing complexity. The result is powerful solutions that free your resources so you can grow your business. For more information, [connect with Epicor](#) or visit www.epicor.com.

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