

5 Factors to Look for in a Precision Manufacturing Partner

by Clark Neft, President, Barth Industries

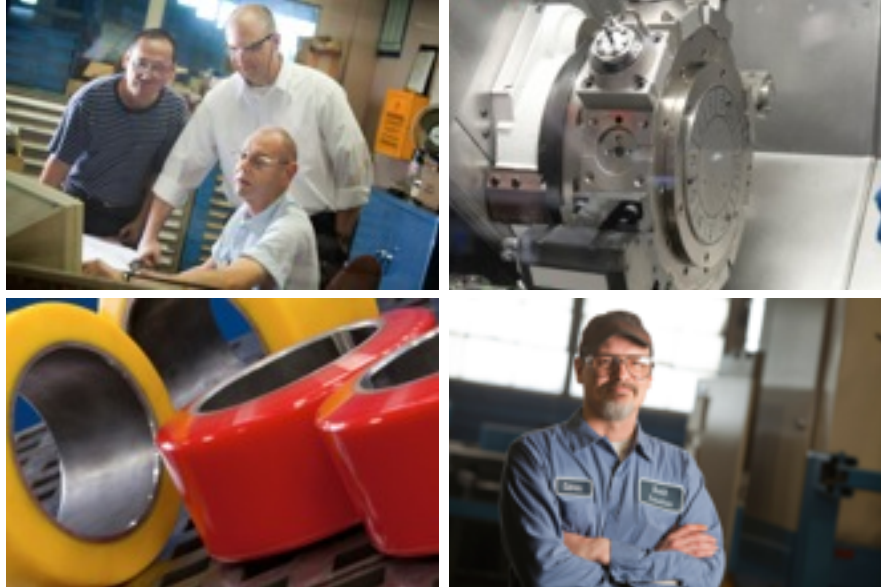
Precision can be a factor in many different manufacturing components from small consumer products to complex medical devices to machine parts such as transmissions. Precision can also be a factor in creating the manufacturing lines that produce some of these products themselves.

There are many reasons to utilize a contract manufacturing in the manufacture and assembly of precision components and systems. For example, working with a CM



allows you to leverage their equipment and expertise with no upfront investment. Often this means that a company can scale-up quickly if demand increases and avoid excess capacity if things slow down. Other reasons include better management of supply

“Whether it’s getting a project off the ground or keeping it running, qualified project managers need to constantly monitor the manufacturing and supply chain process.”



chain, leveraging manufacture-design expertise to reduce costs, and tapping into a deeper well of experience.

For these reasons and more, a solid partnership with a CM will help produce the precision you need and still meet bottom line costs. Here are five keys to a successful precision manufacturing for CMs.

Project Management

Precision manufacturing requires seldom means turn-key-output. Whether it’s getting a project off the ground or keeping it running, qualified project managers need to constantly monitor the manufacturing and supply chain process.

One reason why is that modern manufacturing is a complex process. Coordinating supply chain, technologically advanced equipment, and multi-layered timelines can make or break profitability.

For example, at Barth, we work with our customers to look at a complete system and either manage that for them or suggest design changes to make the total system move into production more efficiently. This knowledge of both design and manufacturability helps our customers get a product off the ground or scale up dramatically. We also work closely with our suppliers to ensure that our price and precision

“Knowledge of both design and manufacturability helps our customers get a product off the ground or scale up dramatically.”

Designed to Be Built

At first glance it seems like finding a partner to manufacture something exactly as it was designed would be the goal. But just following a spec may mask hidden costs. Does the component need to be created this precisely? And, more importantly, if it were designed differently, could it be less precise and less expensive? For Barth, asking these questions and providing answers has saved our customers millions of dollars with no compromise to quality and delivery time.



Many times designs start by solving end-user problems. The manufacturing process of a component is rarely incorporated into the design. Without a thorough knowledge of the entire manufacturing process and supply chain, a design specification is really an educated guess.



The problem is, an educated guess can be costly as a manufacturing process scales up and expands out globally. A good manufacturing partner can help maintain the end results of a design, but change it to enhance manufacturability. This is





true value engineering because it is maximizing every aspect of efficiency during manufacturing with no sacrifice to delivery, quality, or functionality.

Partners in Price

Managing precision is really about managing costs. Working in partnership with a contract manufacturer, a design should reflect both its end use and its manufacturability. This is both an engineering and a project management issue. For example, Barth works with its customer routinely to redesign components in order to save money. But we also save money by reducing a need for precision by taking into account how the component is manufactured. There is also cost savings in how we manage supply partners.

“Working in partnership with a contract manufacturer, a design should reflect both its end use and its manufacturability.”

If you consider precision to be a precious commodity, like any material, you’re eager to use it efficiently. A contract manufacturing partnership can do just that by looking at the overall design to maximize manufacturing efficiency. Next, a CM can manage the entire project, reducing costs internally. Lastly, a CM partnership can view a project’s goals and work toward those goals from a global perspective. Rather than simply executing a design, they can execute a global plan for modular manufacturing to shave costs every step of the way.

The right CM partnership means moving beyond the RFP and looking at your total price and performance goals.

“The ability to economically scale up precision depends on a strong network of manufacturing partners and the ability to manage it.”

Network

As mentioned earlier, a manufacturing partner may not just be a single entity. A network of suppliers can be integral to the success of a project. For example, Northeast Ohio offers Barth a huge network of suppliers, many of whom have worked with our company for years and even decades.

This network enables us manage the precision in projects often at a lower cost because we are leveraging experience rather than making a technological investment. For customers, this network helps reduce overall costs in a complex manufacturing process.

It’s counter-intuitive to think about supply chain in a discussion about precision manufacturing, but the ability to economically scale up precision depends on a strong network of manufacturing partners and the ability to manage it.

Precision (of course)

In the end, a good CM will be a partner in producing the precision you need. A good CM partnership obviously needs to output the precision and quality needed for the product to succeed on the open market. This is clearly a ‘deal-breaker’ in seeking a strong partnership. However, the other four factors listed here need to be considered as well in order to satisfy the design needs, delivery demands, and the bottom line.

Barth Industries Co. is a world class provider of special machines, precision components & fabricated systems. We partner with companies in a wide range of industries to optimize manufacturing through innovative design, consistent service and manufacturing. For more information visit www.barthindustries.com.