

# DEALING WITH SUPPLY CHAIN INEFFICIENCIES FOR COMPOSITE AND POLYURETHANE MATERIALS

Streamlining the supply chain is one of the top challenges of many companies. The design engineer finds the materials needed for the project, the program manager approves it, and the buyer purchases it – but that’s just the beginning. Now begins the process of finding and vetting vendors who can process and assemble the materials into a final product. Does each supplier have a solid history of high quality, on-time delivery, and customer service that goes above and beyond? Many of our clients saw increased success and productivity after consolidating to a single-supplier solution for producing composite and polyurethane foam products. Based on years of manufacturing experience, we’ve identified 5 ways how consolidating vendors can save you time, money, and supply chain headaches:

## #1 Cost Savings

The project budget is top of mind when sourcing materials and vendors, but the default inclination is to choose the cheapest bids available. However, a supply chain best practice is to select the supplier with the lowest all-in cost that also meets the criteria of reliability, on-time delivery, performance, flexibility, and so forth. Working over time with a qualified supplier to reduce costs and mitigate risks in the supply chain yields more savings in the long run than always picking the low bidder.

Another overarching goal of supply chain professionals is the consolidation of the supply base. Choosing reliable full-service (turnkey) suppliers who have the ability to provide multi-step processes in-house minimizes shipping and transactional costs, reduces painful inaccuracies between steps, and helps with negotiating lower costs (because of the increased spend with the supplier). General Plastics not only offers complete fabrication and production services, but we also work with customers on unit pricing to help mitigate costs and bridge a minimum purchase quantity. In addition, we offer a proven effective inventory management strategy. We maintain predetermined min-max levels which assist our customers in managing their operating costs, including storage and handling costs.



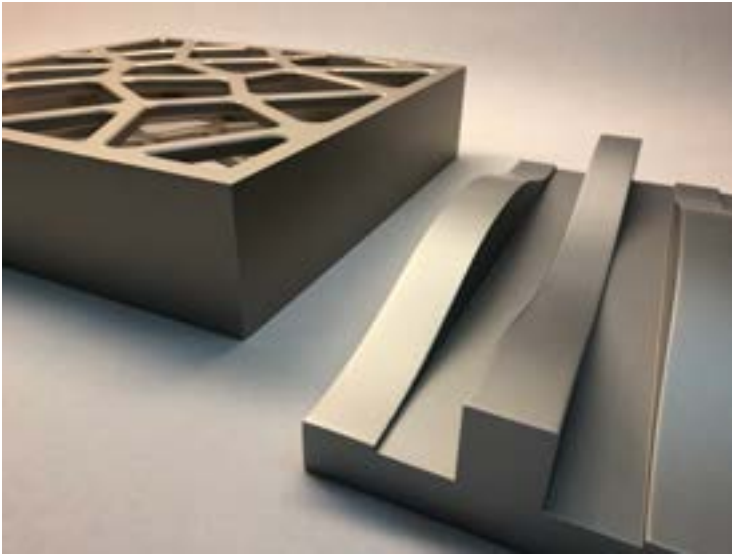
## #2 Time Savings

Every second counts when you’re working on a large, multifaceted project, so lead time is often as important, if not more important, than cost. Consolidating vendors of course helps decrease the amount of time spent transporting and integrating separate parts, so the key is to find a multidisciplinary supplier with a long track record for excellent on-time delivery and customer ratings. At General Plastics, we work closely with each company in identifying opportunities to improve the entire manufacturing process and reduce lead time through consolidation.

For example, we manufactured composite tooling for one of our longtime customers based on 3D patterns they would provide. Eventually, we invested in 3D printing machines to expand our capabilities and took over the process of making 3D tooling patterns for them. This service saved them hundreds of hours of 3D printing time and engineering manpower, thus freeing up valuable resources for pursuing more opportunities.

### #3 Efficiency

Fabricating a complex assembly requires several different capabilities and working with multiple vendors, which can result in various inefficiencies. You have to manage numerous companies, spend additional in-house resources for assembly, and deal with parts that don't fit perfectly together. When you reduce the number of



*Raw material that has been machined, primed, painted and finished.*

suppliers, it simplifies the buying and vetting process, provides consistency, and improves overall product quality.

The ideal one-stop shop needs a wide range of specialized skills and expertise, such as machining, molding, tooling, assembling, and bonding dissimilar materials together. A client of ours was using General Plastics products to create an underwater flotation device. Previously, they purchased and received our foam, shipped it to another vendor for machining, and then shipped it to a third vendor for painting. Now our relationship has evolved such that we not only make the material, but also do all the machining,

painting, and finishing before delivering them a final product. By using General Plastics' value-added services, their supply chain was simplified, lead times were cut in half, and overall costs decreased by 33%.

### #4 Quality Assurance

Finding qualified vendors you can trust is critical to the success of any project. A potential risk to the overall project is if you contract with a low bidder that delivers inadequate products and ends up increasing your all-in costs through rework, rejections, and increased administrative costs. Instead, look to experienced companies with proper ISO certifications, compliance with industry regulations, and internal quality systems.

For instance, a medical components company was using a subpar supplier that was causing them revenue loss. They turned to General Plastics because of our project management skills, attention to detail, and ability to deliver finished products at a high production rate. The client is so satisfied with our performance that they now want us to become their go-to manufacturer and produce more of their products.

### #5 Customer Support

Challenges will inevitably occur in the manufacturing process. The question is, what kind of customer support

will your vendors provide? Are they unresponsive and unhelpful, or very attentive and quick to engage? When difficulties arise, dealing with one supplier to find the problem's root cause is clearly easier than trying to troubleshoot between multiple companies.

Customer support goes beyond just on-time delivery and issue resolution. At General Plastics, we have the technical knowledge to help you make early design decisions and product improvements with long-term impact on cost and performance. A telecommunications company approached us because they needed a real-world solution to the theoretical 5G networking concept they had come up. Because of our in-depth expertise, we were able to work side-by-side with them to invent the necessary formulations and to address their thermoforming and assembly concerns and ultimately delivered a full assembly.

## Next Steps for Simplifying Your Supply Chain

If you're looking for a dependable provider of end-to-end composites and polyurethane solutions that will save you money, time, and in-house resources, consider General Plastics. Engineers and buyers are often surprised to learn we're more than a materials supplier – [we provide in-house production services](#), help you innovate new solutions, and free up time for you to pursue new opportunities. [Contact us](#) today for a free consultation on how we can best help you on your next project.