



## Outsourcing Engineering - A Constructive Way to Get the Job Done

The word outsourcing in the business world has a tendency to elicit an immediate negative reaction. Many people believe outsourcing means local jobs shipped overseas. This definition of outsourcing is starting to change in today's business landscape, especially in engineering. Businesses are beginning to understand how certain strategic outsourcing alliances can actually help keep jobs in the U.S. and allow manufacturers to retain, and in some cases grow, their current market share.

The new business culture (over the past decade) has required successful businesses (small, medium and large) to operate in a lean and productive manner. The old age of having a full staff of engineers to do everything from computer/IT network maintenance, product design/development, prototype assembly, enhancements, production support and facility layout has been forced to change. On-staff engineers are still required for an organization to be successful, in fact, they are now asked to take on an even more significant role as both Product Design and Project Managers. In order for engineers to stay in touch with all the demands of ever evolving technology, in-house design support, marketing/sales support and infrastructure responsibilities, companies are turning to successful outsourcing alliances to help fill the needed voids. Simply put, companies are seeing the need to allow their on-staff engineers (expertise) to focus on core competencies and product/project management and turning to outsourcing for the rest.

1. **Balancing work load** – Balancing your work load is a simple thought, but overwhelming reality when the workload has no finish line in sight. With an increased demand on output and a fluctuating economy, manufacturing facilities are required to be exceptionally responsive, keeping the engineering staff readily available to conquer the next product enhancement or bug fix. Outsourcing engineering will help you better balance your work load, because it gives you a ready and available staff to expand and decrease your overhead, without adding or removing additional engineering talent as these demands hit respective peaks and valleys (the manufacturing “rollercoaster”). This means there is no urgent need to go out and hire engineers for a particular project, to end up letting them go after the project is complete.
2. **Engineering capabilities** – This is in no way insinuating that companies can be more successful by wiping out existing engineering staff... that would be a recipe for immediate failure. No outsourced technical team can understand the product or production history, or the nuances that are required in your specific markets better than the on-staff talent. However, allowing your staff engineers to maintain that expertise while having additional resources or capabilities at their disposal, enables the existing staff to do more with less (i.e. if they need more software programming or mechanical drawing help than usual to stay on track). In-house capabilities will almost always still be required, but having the ability to increase and decrease these needs as the business evolves is crucial to success and growth.



3. **Lean manufacturing** – Lean manufacturing is a term that has become a part of manufacturing facilities everyday life. Cutting back on inventory and creating a manufacturing floor that is run as lean as possible with little to no waste is the current and future trend of manufacturing. Outsourcing engineering goes hand-in-hand with lean manufacturing. Using an outside engineering staff will allow a manufacturing facility to still have cutting-edge engineering capabilities, but it eliminates the day-to-day overhead costs required by having too many and/or not enough of the needed engineering talent at the right time.

Outsourcing allows companies to meet an increase in demand or a downturn in requirements, without losing critical engineering know-how and experience. Companies can keep their key staff focused on core competencies and utilize outsourced alliances to smooth out the rest of the roller coaster ride. This enables them to stay aligned with corporate lean strategies and not be forced to send their engineering/manufacturing overseas. Adding additional engineering resources when needed helps teams meet deadlines and enhance market share... Where is the negative in that?!