



GUIDE TO SELECTING A CONTRACT MANUFACTURER



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Contract Manufacturing | Provided by KTC

When considering the external manufacture of your product, or major assemblies of your product, it is critical to find a contract manufacturer that is well suited to your needs.

There are as many types of contract manufacturing services as there are products on the market.

Food manufacturing requires a different set of skills and knowledge than pharmaceutical or chemical manufacturing, and there are contract manufacturers to support each. Finding the right contract manufacturer for a specific industry is only the beginning. Contract manufacturing of complex electromechanical equipment and assemblies is a narrow band of industry where experience, precision, and an adaptable program become essential.

Once an organization has decided it's time to outsource a key product line or assembly, the next steps can make or break the future. The decision to outsource manufacturing comes with many considerations. Finding a good business fit, negotiating a fair contract, and building a reliable, mutually beneficial relationship are all high-level considerations critical to success. Finding a contract manufacturer can take time and money but the investment will payoff heavily if the right decision is made rather than moving from one ill-fitting manufacturer to the next. Establishing a mutually beneficial contract manufacturing relationship is critical to the

continued success and growth of a company as it's market expands.

A decision made well the first time can forge a strong partnership, and help an organization ensure reliable customer satisfaction. Conversely, an uninformed decision made in haste can have dire consequences for an otherwise successful business leaving them scrambling when a contract manufacturer fails to deliver.

Key Factors In Choosing a Contract Manufacturer:

When picking a contract manufacturer to outsource equipment production to there are a couple of very large decisions to make upfront.

Defining the Relationship:

There are several types of contract manufacturing relationships to be considered. It is critical that the owner of the intellectual property (IP) be the guide in establishing clear expectations for any agreement. If cost and risk are primary motivators for an organization reaching out for manufacturing assistance, then it is worth exploring the idea of a partnership. Partnerships can be beneficial as both hazards and rewards are shared by both

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parties with less overall risk to the IP holder. The risks however are the potential loss of singular control over the product, difficulties in division of responsibilities for marketing and sales, and the potential for cost increases. If however, an IP holder is confident in both the product and market, seeking a manufacturing only relationship with clear inventory and delivery expectations is almost invariably a more economically beneficial course. Whether seeking a partnership or a simple manufacturing contract, it is critical that the relationship between the IP holder and the manufacturer be well defined, and clearly understood by all parties.

Going International:

The benefits to the international market can be undeniably tempting. Determining if the risk is worth the reward will always be a judgment call that can only be validated with hindsight. Some items to consider include the status of international politics and the impact of tariffs, trade regulations, shipping/customs costs and challenges, and unexpected events of nature. In many cases, both in the US and originating countries, tides can shift quickly rendering what may have started as a mutually beneficial agreement into a costly liability. Though less frequent in the twenty-first century, language



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barriers can still play a challenging role in international relationships, as can cultural differences, lengthened time-to-market, and time differential. Lastly, there are also ethical questions that must be addressed when shopping business relationships abroad. Several companies in the last few years have stumbled into ethical dilemmas when it came to light that their foreign manufacturers had human-rights abuse issues, or found that their IP had been illegally appropriated. The cost benefit of international manufacturing can greatly benefit a company however in the search for a Contract Manufacturing (CM) relationship, companies lacking experience abroad should tread carefully, or search for CM's who have existing international relationships that have already navigated the most hazardous waters.

Proper Vetting:

Once an organization has made fundamental decisions about the type of contract manufacturing relationship it is looking for, the real work begins. There are several key qualifiers that can help narrow a pool of candidates to the right one for the job. Prioritizations will vary between companies based on project or production needs, but each of the following items should take a role in leading the decision.

Volume Thresholds:

Understanding both the minimum and maximum throughputs of any contract manufacturer will help manage performance expectations. Know that many contract manufacturers will have a minimum order threshold to ensure they are able to dedicate

the necessary facility resources to your account. Similarly, every manufacturer has a production capacity that they will not be able to exceed without risking loss of quality, or having adequate time to ramp. Knowing both the minimum and maximum volume thresholds will help in finding a mutually beneficial relationship.

Experience & Competency:

Assessing a potential manufacturers ability to meet the technical needs for production of a product is an obvious step, but technical proficiency is only the beginning. It's also important to understand their experience specific to the field and with similar projects. A good CM fit will have experience with similar products and competencies specific to your sector of business. Conversely, it is also a smart move to ensure that if the CM has customers with similar (or competing) products, that your IP & production methods will remain confidential and secure. Some contract manufacturers successfully aid competing companies with similar products, but special care and considerations must be employed.

Supply Chains:

Handling supply chains in a CM agreement can be challenging. A CM has their right to privacy and sourcing is one of the ways smart contract manufacturers save money. Understandably, a product owner will want to have some input on the quality of parts and materials used and may even have specific suppliers mandated via approved vendor list (AVL) in the manufacturing agreement. Striking a balance can be important to successful

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contracts. Similarly, free-issue parts are a potential hidden cost in a project that can escalate quickly, making supply chain renegotiation necessary. Understanding a CM's policy on free-issue material can alleviate headaches mid-project. Ultimately, there is no one-size-fits-all approach to determining successful supply chain structure, but it should be a valued point of discussion.

Accreditation & Compliance:

Understanding compliance is critical to finding a good CM. A company may boast that they "align with" or are "compliant to" a set of standards. Look beyond the marketing for current certifications, such as ISO9001 or ISO13485, and evidence of a relationship with a credible registrar. Inquire about certifications and the steps taken to remain compliant. An organization's commitment to third-party accreditation can reflect their commitment to customers. If expired credentialing or an overstatement of certifications is discovered, it's time to move to the next candidate.

IP Management:

The protection of processes, suppliers, and drawings is paramount when selecting a manufacturer. There must be an expectation of confidentiality with regard to processes, drawings, technology, innovations, suppliers, and in some cases the entire business relationship. A competent CM will have measures in place to ensure that products, and IP remain secure and confidential. Evidence of security can be seen in secure or controlled areas of a facility, documented

policies on document and revision management, and in some cases, the use of physical barriers to protect client interests. Every project, regardless of size, scope or cost deserves to be handled with appropriate protections.

Financial Stability:

A financially unstable CM presents a host of liabilities related to handling of contract products. Ensuring stability can be difficult and understandably, few organizations will be willing to open their books entirely. When reviewing a company, look for clues that it invests in itself with facility improvements, new tools, employee training, etc. Capital improvements and facility expansion are reliable sign of the financial confidence of an organization.

Dedicated Account/Project Management:

When something goes wrong, having a designated contact can make the difference in preventing loss. Some CM's provide a designated Account Manager (AM) or a Project Manager (PM) to work one-on-one with clients. Having a designated contact can make all the difference to a project's success. It's rare, but some CM's provide both PM's and AM's who work side by side with customers during project development and product realization. Be certain the voice of the customer is effectively addressed with any candidate.

Finding a Good Fit:

Contract Manufacturers vary widely in capability with regard to volume production

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limits, product size, and project scope. Volume and product size are obvious fit-points; project scope is important as well. A CM's experience with similar projects, and the ability to accommodate progressive demands for a product are critical for growing companies.

Research & Interviewing:

Being armed with a list of items to review is only part of the selection process. Checking boxes on a list doesn't provide the complete insight necessary for a confident decision. When interviewing prospective contract manufacturers, begin by doing your homework before investing in time and travel. Establish the number of facilities the company has, and their capabilities. Determine if they outsource for any core product requirements. Research the company's websites, looking for listed certifications, and read their available material. If a project calls for precision assembly, clean or controlled environments, engineering, or a lean approach to manufacturing it is best to determine these offerings before investing in travel to the company. Once diligent research has been completed, making the investment in travel to visit a facility is the next logical step. While touring prospective manufacturers, ask informed questions related to project needs including change management processes, handling of nonconforming product, production controls, and quality or compliance programming. Detailed notes should be maintained for any visit. Many smart interviewers use a simple scale system like Likert or Numeric to quantitatively track essential points about a facility. When employed properly, these scales can provide significant value in making a final decision as well as justifying recommendations

to leadership. Lastly, though more qualitative, consider how the visit felt. Was the visit a clear priority, and would you qualify the company as welcoming? This can be a soft measure however it is an assurance that the best treatment will happen during a first visit. If left un-wowed, it may be time to move to a new candidate.

Pitfalls of Contract Manufacturers (And How to Avoid Them)

Capacities and Capabilities:

Every business imagines the ability to rise to new challenges or meet tight deadlines however contract manufacturers cannot afford those risks when quoting projects. Still some businesses will overestimate their capacity, landing themselves and their customer in a difficult situation.

Proper vetting can go a long way towards minimizing this risk. Take the time to look for evidence of on-time & on-track projects, and a long history of success. Experience speaks volumes, businesses that have been around for decades do not last by making promises they cannot keep.

Communication Issues (Internal and External):

Poor communication can manifest in the form of bad internal communications, leading to incorrectly labeled drawings, failures in engineering changes, purchasing failures and a host of other problems. Similarly, bad external communication can lead to failures in recognizing the voice of the

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customer. Product and schedule changes may be lost, causing late deliveries, or nonconforming product. In today's high-speed world communication is key and being out of touch or unable to effectively relate messages can be costly.

Avoid organizations with bad communication by testing responsiveness. Judge carefully the speed and clarity with which both emails and phone calls are returned. When negotiating contractual requirements, include expectations for project status reporting. Lastly, if warning signs related to communications appear, address them candidly by reinforcing a clear expectation for responses and actions.

Changes in Leadership or Internal Structure

When a contract manufacturer makes internal changes, every customer will feel it. The issues may manifest in poor communication, or confusion related to responsibilities and authorities. Some organizations make an effort to hide internal changes, while others embrace it, informing customer proactively. Look for CM's with stable organizational structure and well-defined leadership roles with minimal turn-over. Direct questioning can shine a light on pending organizational changes, as well as how a company has handled shifts in leadership in the past.

Financial Issues:

Every organization has financial ups and downs, lean times come and go, but

persistent financial issues can cause serious issues in contract manufacturing relationships. Early warning signs are rarely visible, but if a CM's situation deteriorates it can manifest with red flags like unexpected parts shortages, and late product deliveries.

Mitigating against another businesses financial issues is nearly impossible. Instead, look for strong companies with long positive business relationships. Similarly, companies who invest in their staff, their community, and themselves through capital improvements are unlikely to be plagued with worries about raw material ordering to fulfill a contract.

With so many options related to contract manufacturing, making the right decision can appear to be an overwhelming workload however the consequence of making a poor choice represents the potential for a string of unexpected issues and difficult situations that can impact an organization's customers, their reputation, and ultimately the security of their bottom line. Smart organizations will take the time to closely investigate options when searching for a solid contract manufacturer. Looking for the right fit related to size, culture, volume, and other variables will provide some security and assuredness in knowing that the contract signed is one that will be mutually beneficial and profitable. Remember, however, that "fit" goes beyond the factors mentioned above; to be truly successful for the long term, there must also be compatible culture, trust, and a willingness to be adaptable and flexible when necessary.

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ABOUT US

*Long History Built on Quality
Performance*

Keller Technology Corporation was founded in 1918 as the Duplex Buffing Machine Company—which offered custom and standardized buffing machines, as well as general machine shop services. The company grew as a general machine job shop servicing the local industries of metropolitan Buffalo, New York, and was renamed J & A Keller Machine Company, Inc. Over the next 40 years, the company grew both in size and capabilities providing machine assembly building and manufacturing services to customers located throughout the United States. Upon entering the '80s, the name was changed to Keller Technology Corporation to reflect

the company's expanding global scope of operations and capabilities. Presently operating from facilities in Buffalo, New York—Charlotte, North Carolina and affiliates in Seoul, South Korea—Keller Technology offers a range of "Build-to-Print," "Design & Build" and Contract Manufacturing services for a wide variety of high-technology industries. Our corporate mission is focused upon total reliability, providing our customers quality performance, value, schedule adherence, and technical compliance. Keller Technology Corporation remains a family owned and managed corporation with fifth-generation participants, supported by a skilled and talented staff of professionals. Find out how we can help with your manufacturing needs.

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