THE CONTRACT MANUFACTURING CHECKLIST:

YOUR GUIDE TO OUTSOURCING MACHINERY AND MORE

PEKO

Now more than ever, a common question companies that want to produce and sell **Machinery, Equipment, Instruments and other Major Mechanical Assemblies** ask themselves is **"How will I make my product?"** The investment involved with setting up an entire manufacturing operation is an enormous barrier to making the OEM product in house. Inevitably, **"Find the right Contract Manufacturer"** is the answer for many companies. But landing on that square is just the beginning.

The next question is **"How do I find a Contract Manufacturer for my product?" PEKO is here to help answer the question** by compiling a list of common considerations. We've spoken with hundreds of industry professionals – **Program Managers, Manufacturing Managers, Engineers and Sourcing specialists** - who have evaluated Contract Manufacturing for their machinery or equipment and are ready to share some insight with this guide.

Important factors for choosing the right Contract Manufacturer are specific to any company indeed, but this checklist will give you a great head start during your own due diligence. **This guide highlights and expands on 5 major categories: Program Partnership, Onboarding, Production, Engineering and Company.**

The journey of choosing a Contract Manufacturer will take weeks or months, but by utilizing this guide you can choose the right partner to guarantee successful production of your equipment.

1.

PROGRAM PARTNERSHIP

☐ DEDICATED PROGRAM MANAGEMENT & PRODUCTION TEAM

Program Management is critical for Contract Manufacturing success. A Program Manager should be assigned to each customer to monitor Cost, Quality and Delivery. This PM is a single point of contact for customer interface and is responsible for managing all the individual specifications and requirements inherent to the program.

☐ QUALITY SYSTEM

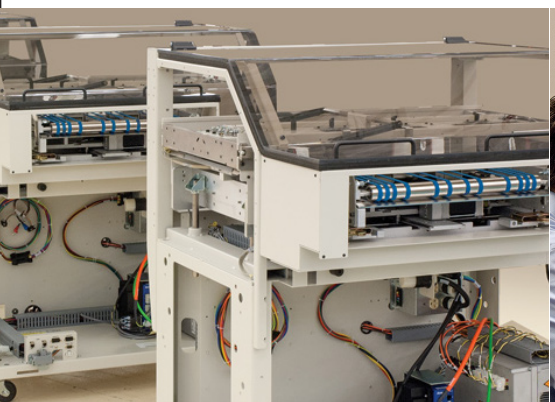
The Quality system, which may include ISO 9001, ISO 13485 or AS 9100, is the backbone of a successful and repeatable manufacturing system. The strongest companies employ a QMS that overarches all facets of the contract manufacturing operation. With these systems in place, products can be consistently built each and every day, dramatically reducing the risk of discrepant products ever reaching the customer destination.

☐ GOOD COMMUNICATION

At PEKO, we understand that communication is everything. From the Program Management team to the corporate executive team, it's absolutely critical that a communication line is established with the customer. The CM should be proactive to ensure that inevitable manufacturing concerns are remedied with the customer as soon as possible.

☐ PROTECTION OF INTELLECTUAL PROPERTY

High-Tech OEM's often have proprietary systems, processes and techniques that are vital to the success of their business. A great contract manufacturing partner will ensure that IP is protected and remains completely owned by the OEM. Beware of CMs without the commitment to IP ownership protection as well as the various security protocols that physically protect it.



2.

ONBOARDING

☐ NEW PRODUCT INTRODUCTION (NPI) PROCESS

A highly developed NPI process is key to successfully onboarding new programs. The process of transferring knowledge of machinery and equipment designed by two companies requires special attention. Look for CMs that have years of knowledge in this transfer. This process includes tasks such as current state evaluation, design maturity review, functional assessment and others to ensure a rapid transfer to a manufacturing setting.

☐ PROTOTYPE/QUALIFICATION BUILDS

We encourage customers to walk before they run. Before a piece of equipment can move to the production line, prototyping and qualification builds are mandatory. Even if the design is well into a mature stage, in most cases there are particularities of the build that must be performed and documented a few times to ensure repeatability in the future. At this stage, high-level toolmakers and electricians are involved with both the NPI and production teams so that high-quality builds can be ensured in perpetuity.

☐ CREATE A PROFESSIONALLY DOCUMENTED MANUFACTURING PACKAGE

The onboarding process consists of one of the most critical steps: creating a professional manufacturing package that is the framework for the production process This step will ensure that all BOMs are up to date, prints are manufacturable, work instructions are complete, Quality plans are in order and the entire program is ready for production. Any good CM has these processes in place for true repeatable manufacturing.

☐ TESTING AND PRODUCT ACCEPTANCE

At PEKO, we're always working with an OEM to define "good." This Contract Manufacturing philosophy describes the ability to take a sophisticated machinery or equipment product, and formally agree upon all the attributes that must be satisfied before the product can be shipped. Program stakeholders from both the OEM and CM are involved in this critical portion of the onboarding process.

3.
PRODUCTION

☐ COMPONENT MANUFACTURING – CNC MACHINING/SHEET METAL

Vertical Integration is a key part of a Contract Manufacturer's success, especially for those that deal in lower or mid volumes (tens to hundreds yearly). PEKO stands by our ability to do CNC Machining, Sheet Metal Fabrication, Welding and Cable Harnesses in-house. These capabilities are typically involved in the manufacturing of machinery, equipment, instruments and other major mechanical assemblies. In-house component manufacturing benefits the customer by providing the CM with excellent control over cost, quality and lead time across everything on the assembly line.

☐ WELDING

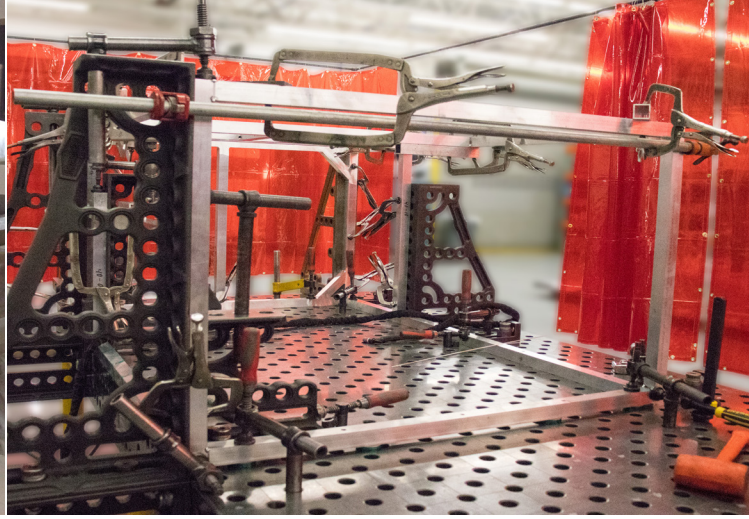
MIG, TIG, Spot and Robotic welding are all used in the fabrication of frames, cabinets, enclosures and other parts involved in the manufacture of machinery and equipment. A proper welding department with certified welders, ample welding equipment and the right material handling capabilities are critical for this type of manufacturing. These days, great welding departments are hard to come by, so having a CM with in-house capabilities is an enormous advantage to any OEM looking to outsource.

☐ PAINT SHOP

Over time, we've realized that Paint is a consistent problem for everyone. Hours and hours of careful planning and coordinating to get to the final steps of an assembly, can be altered by complications with paint which can make or break the deadline. By having in-house paint services, these lead time issues (as well as markup issues) are avoided at the time it matters most.

☐ ASSEMBLY/INTEGRATION TEAM

When production is in effect, a great CM will have a team of experienced, competent and trained individuals to carry out the assembly and integration. These experienced professionals will be supported by their supervisors, tools, techniques and a manufacturing system that ensures the team's success. For most programs, the technicians will be trained specifically for the product, while the tools and workstations will be optimized for a world class build quality and efficiency.



☐ PRODUCTION VOLUME RAMP-UP

A CM that has great communication with the customer should have a working knowledge of expected ramp-ups and a plan of action for when demand surges. Whether it's people, processes, space or tools, the best CMs understand that demand levels may rise quarterly or even weekly. Armed with this knowledge, the right contract manufacturer for the job will be ready to expand when the customer needs it the most.

☐ SUPPLY CHAIN MANAGEMENT

Behind the scenes of a Contract Manufacturing company is a team of people managing the entire supply chain for each program. Products built at a CM have hundreds of parts in their BOM with some custom manufacturing. Typically, about half of those parts are off the shelf motors, drives, hardware and other commercial components. The supply chain works hard to manage all these parts so the OEM is only responsible for the top-level part number when placing orders.

☐ PACK AND DROP SHIP TO END USER LOCATION

Does your CM have the ability to send fully functional, tested and packaged product directly to its final destination? This might seem obvious, but when you choose a CM make sure they can truly deliver your complete machine or instrument where it needs to go, not just back to you.

4.

ENGINEERING

☐ PRODUCT/TECHNOLOGY EXPERIENCE

No CM can be an expert at everything, but it helps to know when your manufacturer has experience in your field. Experience can mean industry, like Defense or Medical, or by technology, such as motion control or vision systems. Regardless, some engineering familiarity with the project type will be extremely advantageous.

☐ CONTROLS AND ELECTRICAL COMPETENCY

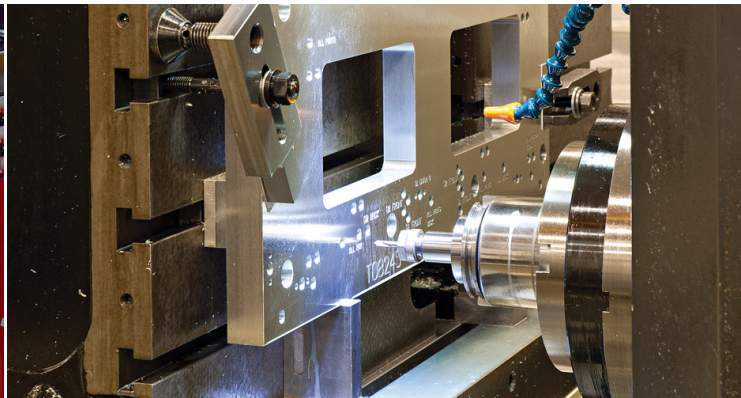
Machinery, Equipment, Instruments and other high-tech assemblies typically share an attribute of electrical componentry. Sensors, PLCs, power supplies, vision systems and other components are exceedingly common in such systems. CMs for these types of builds must absolutely have a team of electricians, techs and engineers that can ensure your product is brought to life properly in both the prototype and production phases.

☐ REVERSE ENGINEERING

In the Contract Manufacturing world, not all technical data is readily available when the OEM engages with the manufacturer. Certain programs require various degrees of reverse engineering to fill in the gaps as needed.

☐ PRODUCT DESIGN UPGRADE/REFINEMENT ABILITY

More often than not, OEMs have improvements to implement and must refine or optimize a design before the Contract Manufacturer takes the product into full-rate production. This often requires an engineering team to take a second look at things like DFMA, tolerance stack-ups, drawing updates and compatibility. Also, future generations may be planned in parallel with the current generation models and the CM must be equipped to assist.



5.

COMPANY

☐ LONGEVITY

It's important to choose a CM with a long track record of success. Manufacturing is a data-driven world filled with talented experts. Companies with decades of experience have seen the evolution of industry technologies and are well aware of the pitfalls that await production manufacturing. A CM with a proven history is likely to head into the future with you and your product.

☐ COMPANY CULTURE SYNERGY WITH OEM

A company culture that matches your own is a great indicator of success. When good teams from both sides of the table decide to work together, great things happen. Some company culture attributes you can evaluate during your due diligence include business methodology, communication, responsiveness, teamwork and commitment to customer satisfaction.

☐ FINANCIAL STABILITY

Choose a CM with a financial profile in which you're comfortable with. A debt-free company like PEKO can buy space, machinery and tools at a moment's notice to react to your needs. Companies that are financially stable are more likely to make smart decisions on your behalf, and you'll have the peace of mind knowing that your Contract Manufacturer will be safe from financial turmoil.

☐ TOUR

Take a tour of the facilities. Ask yourself the following questions: Is the company willing to let you come visit? Is this a clean, safe environment for your product? Do the employees have enthusiasm and pride in their work? Do you see the processes that would be involved with your product? Is the management team seem easy to work with? Does the company reinvest in itself? If your answers are all yes to these questions, then you should feel confident with the CM's capabilities and reliability.

PEKO Precision Products, Inc.

CONTACT PEKO PRECISION TODAY

To speak with a helpful PEKO representative about your upcoming projects, schedule a tour, or request a quote, contact us today.

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